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The Book of Knowledge

The Children's Encyclopædia

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Volume XXII.

NEW YORK: THE GROLIER SOCIETY
LONDON: THE EDUCATIONAL BOOK CO.

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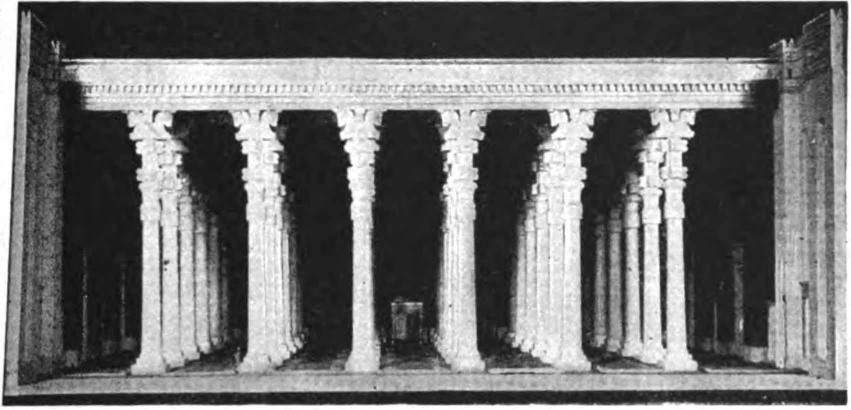


The Persian kings lived in great luxury, and built the most magnificent palaces for themselves. In this picture we see the Throne Room of Darius the First at Persepolis, as it was in the days of Persia's glory.

THE RISE AND FALL OF PERSIA

ASIA'S CONQUERORS AT THE GATES OF EUROPE

CONTINUED FROM 4984

Persian king's bodyguard

Among the inscriptions belonging to the centuries when the grand and powerful "sons of Ashur" were building their fine palaces, forming their wonderful libraries, and subduing their neighbours far and wide, are references to expeditions against a power that had for long been steadily growing on their borders.

Dangerous foes, the Assyrian kings called them. They belonged to the Aryan family of nations, from which we ourselves and our neighbours in Europe are descended, and their forefathers came from the mysterious Heart of Asia.

Trained in poverty, strong in body, simple in their lives, they swept down towards the old nations of Western Asia, who were weakened by wealth and long prosperity, like a fresh, keen wind blowing down a hot valley from the snowy mountains above.

Some of the newcomers settled between Assyria and the Caspian Sea, and are known to us as the Medes. The first of their kings about whom we can be certain was Cyaxares, who became the ally of Nabopolassar, who led the Babylonians in the final struggle against Assyria. It was Cyaxares himself who took Nineveh, in those awful days of flame and terror which gave the death-blow not only to the magnificent city, but to the empire of the "king of multitudes," as Ashur-bani-pal and the rest loved to call themselves. Nabopolassar, who became the founder of the New Babylonian monarchy, had the southern part of the great empire for his share, while Cyaxares stretched the boundary of his country of Media over Assyria, and right away westwards till it touched the kingdom of Lydia in Asia Minor.

The successor to this enlarged Median kingdom was Astyages, who was dethroned by one of the great generals that stand out in the world's history. This was Cyrus—whose picture is on page 5172—who led the Persians from their mountainous home in Persis, by the Persian Gulf, to a series of brilliant victories.

The Persians were of kindred stock with the Medes, for their ancestors had also been born in the bracing air of the central plateaus, and poverty and hardships had been their training as they rode westwards. feeling the world before them. Cyrus was a vassal of Astyages, and after the revolution which made him king of both the Persians and the Medes, the two nations settled down to an equality, and became, to all intents and purposes, one people.

THE WEALTHY CRŒSUS AND THE ALL-CONQUERING CYRUS

The genius of Cyrus soon led him to extend this Medo-Persian Empire over the western part of Asia Minor. There was in Lydia at that time a king so rich that the expression "as rich as Crœsus" has passed into a proverbial way of describing a man of great wealth. He did his best to arm his country against the invaders, but his allies failed him, and in the most tragic and rapid manner Cyrus became master of all the part of Western Asia that is washed by the Black Sea and the Mediterranean.

And then, about 539 years before Christ, came the turn of Babylon! Some of the barrel-shaped cylinders on which Babylonian history is written are now to be seen in the British Museum. Those of Nabonidus, King of Babylon at the time that Crœsus was doing all he could to defend himself against the invincible Cyrus, tell of the searching for records of olden times, of the building and rebuilding of temples for the gods, and of the prayers Nabonidus offered up for himself and his son Belshazzar.

How strange it seems to us! The father absorbed in past history, and honouring the gods; the son carelessly feasting; while the renowned Cyrus, with his army, was actually outside the huge walls, using the powers of his great mind to take their capital!

AN ARMY THAT MOVED A MIGHTY RIVER OUT OF ITS WAY

His cylinder gives the account of how he did it; how the tawny waters of the Euphrates, which flowed through the city, were changed from their course, and the army poured in by the river-gates. It tells, too, how the conquerors entered without battle, so that the city was spared tribulation. Mention is also made of the homage and tribute paid by the inhabitants and peoples round, and how Cyrus pleased the people by restoring the images of the gods to the shrines to which they belonged in other parts of the country. The tablets of this reign and the succeeding ones show that life went on in the city and country much as it had done before the Persian conquest.

The hum of the old busy life seems to fill our ears as we read from the clay records of the trade and agriculture, the debts and loans, the planting of date-groves, the apprenticeship of lads to learn trades, such as baking, weaving, stone-cutting, with hundreds of other details, as appropriate to the life of to-day as to that of the age of Cyrus.

The religion of the newcomers differed at first very much from that of the Babylonians and Assyrians. It was much simpler and purer, though as time went on it was influenced by the idolatries of the older people. Ormuzd was the name of the one great god who sent the people victory and safety and every other blessing.

THE WISE MEN OF THE EAST WHO WORSHIPPED FIRE AND SUN

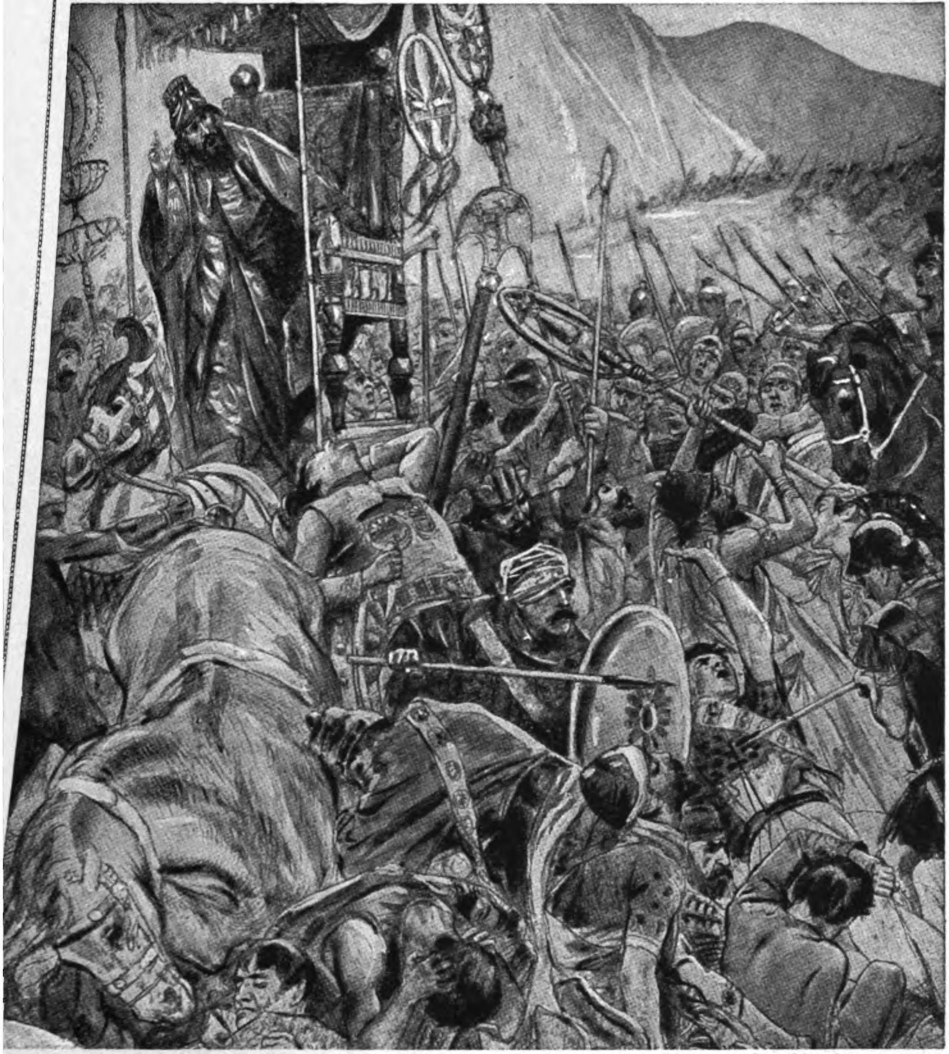
The famous old faith from the Far East, which held the sun and fire in adoring reverence as the expression of the All Ruler of the world, was taught to the Medes and Persians by the great Zoroaster. The priests of this wonderful religion were the magi, or wise men, who, later on, became very powerful in the state.

Cyrus showed much sympathy with the Jews, who also were worshippers of one God, and had been long held captive in the country he had conquered. It was in his day that the joyful processions of the Great Return began to set out across the desert from Babylonia towards the home which they so ardently longed for. As they went, they sang the songs that were impossible to them in the "strange land" of their exile.

After the great Cyrus came his son Cambyses, who wrought much misery and havoc in his own family and in Egypt, where he went as conqueror.

Darius the Great, who followed Cambyses, though not of the family of Cyrus, was a vigorous and strong ruler, crushing rebellions as they arose in the various parts of his immense empire, and arranging for its government and good

THE FLIGHT OF DARIUS, THE PERSIAN KING



exander the Great totally defeated a huge Persian army at the battle of Issus, and in this picture we see rius, the Persian king, fleeing from his chariot, which is nearly surrounded by the Greeks. So confident he been of victory that he had brought his family to the battlefield to see the defeat of the Greeks.

riots of the Persians, with huge knives fastened to the wheels, had always struck terror into their but the Greeks rendered them useless by wounding the horses and drivers with arrows and javelins.

order with great ability. There are many tablets in the British Museum of the reign of Darius, comprising all sorts of documents about sales of houses and lands, partnerships, and loans of silver.

Much about this king has been learnt from the various inscriptions found on rocks—chiefly that of the rock of Behistun, which has proved such a valuable key to reading the cuneiform writing. The account of the wars and conquests of the great king had to be cut in the Babylonian and Scythic languages as well as in Persian, so that the chief nations under his rule might read and understand. We have, too, a fine portrait of the king, cut in. the rock, receiving the submission of the chiefs of revolted nations, all roped together.

Other portraits of Darius are on his gold and silver coins, which were of great use in the trade that grew up between the various provinces of the empire.

KING DARIUS, THE HUNTER OF LIONS AND THE FRIEND OF DANIEL

A cylinder seal of the king, giving his name in the three languages, and showing him hunting a lion from his chariot, reminds us of the particulars that we have of this king in the Bible story of Daniel. On the slabs of the Assyrian kings we can see the cages in which the lions were brought to the hunting-fields from dens such as the one into which the aged Daniel was thrown, and a seal—the kind that is rolled over moist clay—is shown, that might well be the one which Darius used to prevent any tampering with the order he had so reluctantly given. The word of the king, once passed, by the laws of the Medes and Persians, could never be broken.

Of late years the sites of the great cities of the empire have been dug over, and wonderful remains have been found and studied. We can see at Persepolis the ruins of the greatest of the palaces, not only its ground plan, but the "noblest flight of stairs in the world," and grand gateways with bulls copied from those in the Assyrian palaces. Here, too, are the ruins of the magnificent pillared halls—larger than any cathedral in England. The sculptures show us the Persian guardsmen and attendants who waited on the great kings. At Susa, the ancient capital of the Elamites, and at Ecbatana, the great city of the Medes, are also found remains of splendid palaces built by Darius and his successors. As we look at the map to find these cities, and note the extent of the dominions of Darius, we are filled with wonder.

A KING'S DREAM OF TWO EMPIRES, AND THE VOICE AT THE ROYAL FEAST

From countries round the Indus river the empire stretched to the Caspian and Mediterranean seas, and far into Egypt, where Darius improved or built a canal from the Nile to the Red Sea. Great roads connecting the various provinces, bridges, inns, watch-towers, were built by his orders, and a royal post was established. Darius also made his way across the Bosphorus into Europe, and across the Danube, extending the boundaries of the empire and paving the way to attempt further conquest in the West.

For a great struggle was coming on. The provinces in Asia Minor, which Cyrus gained for the Persian Empire, were peopled by Greeks from over the sea of many islands. These people loved freedom, and hated the government of an absolute monarchy. By degrees discontent led to rebellions; rebellions to savage punishments and threats of vengeance. Particularly angry was Darius with the Athenians, who had not only dared to help their fellow-countrymen across the sea, but had refused to submit in any way to the great kings.

While he was nursing his plans to make himself absolute master of the revolted states, and of Greece, and perhaps of all Europe beyond, it is said that he had these words said to him three times a day, when he sat at his luxurious feasts: "Master, remember the Athenians."

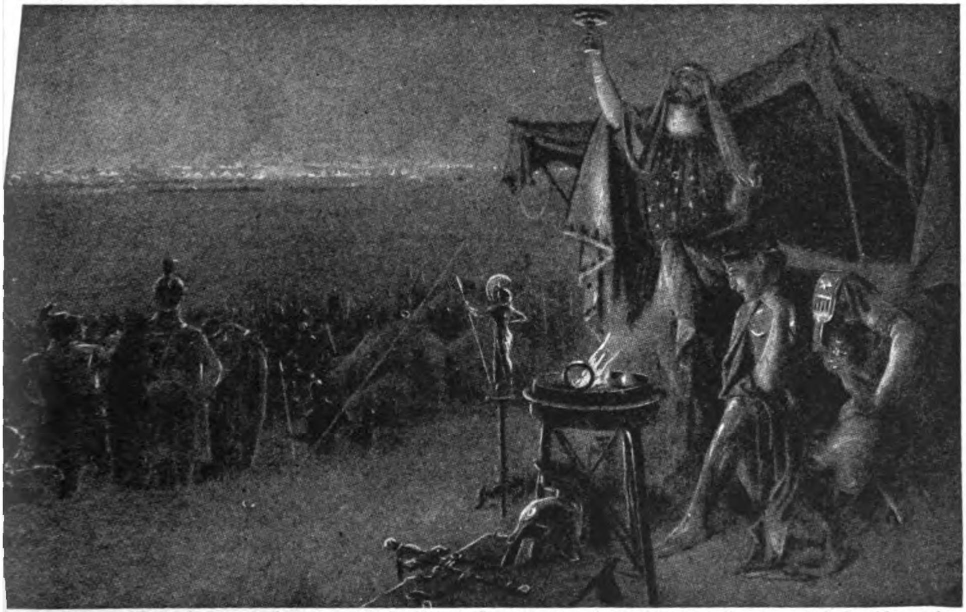
HOW DARIUS MARCHED INTO EUROPE OVER A BRIDGE OF BOATS

There was furious fighting with the Greeks of Asia Minor, whose cities were burnt, and whose people, often quarrelling among themselves, were overcome by the huge numbers of the army of Darius, and were beaten down and destroyed. So the beautiful bright coast with its sunny islands and lovely bays became ruined and desolate.

And then Darius "remembered" the Athenians. He sent an immense army, gathered from all the countries of his empire, under his son-in-law, and they marched over a bridge of boats—as Darius had done before when he went

ALEXANDER AT THE PERSIAN CAPITAL

After repeatedly defeating the Persians, Alexander came to Persepolis, their magnificent capital, where were gathered vast hoards of wealth, and it is said that the treasury alone contained a sum equal to $138,000,000, which fell to the Macedonian conquerors. But, though "Master of the World," Alexander was not master of himself. He was greatly lacking in self-control, and he stained his character by his excessive love of wine. For many days he remained at Persepolis, spending his time in revelling, as shown in this picture, and finally he burnt the city.



e battle of Arbela, which was really fought at Gaugamala, about twenty miles from Arbela, Alexander overthrew the Persian power, totally defeating the huge army of Darius, which some have estimated r a million men. In this picture Alexander is seen, on the eve of the battle, gazing into the flames of an fire while a priest is invoking the gods. In the distance can be seen the fires of the Persian camp.

to conquer the Scythians on the Danube—across the Hellespont, which we now call the Dardanelles, into the country which is now Turkey in Europe. They expected to make short work of the enemy, but the rough seas wrecked their ships, food ran short, and the wild men of Macedonia and Thrace bristled over the rocks and crags, and held the way, so that the army had to return without getting to Athens at all.

THE TERRIBLE MOMENT WHEN THE FATE OF EUROPE HUNG IN THE BALANCE

But Darius, with his great wealth and resources, soon fitted out another expedition. This time it sailed across to Greece in 600 ships, passing the island of Naxos, and landed only a few miles from Athens. It was an awful moment for the Greeks. It was almost worse for them than it would have been for the English if the Spanish Armada had sailed up the Thames and landed at Gravesend.

Great was the excitement, terror, and dismay in the little states of Greece at the news of the landing of the Persian hosts and the burning and sacking of one of their most beautiful and prosperous cities.

The details of the manner in which the Greeks met the trouble we read in the Story of Greece, beginning on page 5121. It is notable that though there were ten times as many Persians as Greeks in the battle of Marathon which followed, the Greeks won the day, and drove back the Persians to their ships. Their attempt to land nearer Athens was prevented, and so a second time the Persians had to return home without any glory. About a hundred generations of men have lived and died since Marathon, but the result of that famous battle affects the world to this day.

THE GREAT ARMY OF THE SOLDIERS OF FORTY-SIX NATIONS

Darius was more furious and determined than ever when the news of Marathon came to him, and he vowed to take no rest till the insolent Athenians were dragged in chains to Susa. Swift messengers were sent along the royal roads to bid the governors of the provinces send men and money; but, in the midst of his plans, Darius died, and his son, Xerxes, succeeded him. The handsome, gay young man cared more for pleasure and an easy life than for warfare, so that it seemed at first as if the conquest of Greece might be given up. But, in the end, he was persuaded to continue his father's work, and enormous preparations were made for the invasion. The army raised was, perhaps, the largest ever seen in the world, greater even than the Grand Army of Napoleon. It is said that forty-six nations sent their best soldiers, men of all colours—black Africans, and tawny and white natives of far distant parts of Asia. And these soldiers, with their diverse clothing and arms, passed to the war on foot, on horseback, on elephants, on camels, and on ships.

Xerxes was in the midst of the host himself, with an immense following of servants and courtiers, surrounded by every sort of luxury that enormous wealth could provide. How changed was all this from the days of his poor and hardy and successful forefathers!

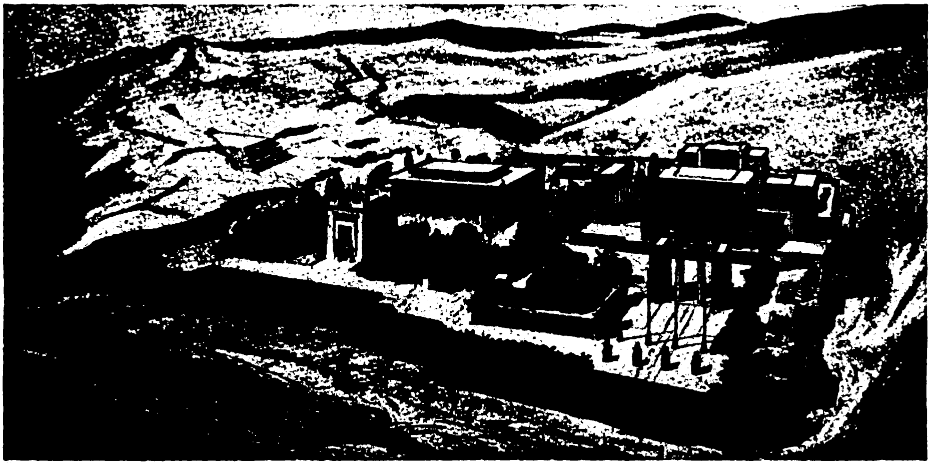
It took the army seven days and seven nights to cross the double bridge of boats across the Hellespont. As it moved on towards Greece, many cities were ruined by having to supply the vast quantity of food that was needed even for a single meal.

THE LITTLE BAND OF SPARTANS WHOSE NAME CAN NEVER DIE

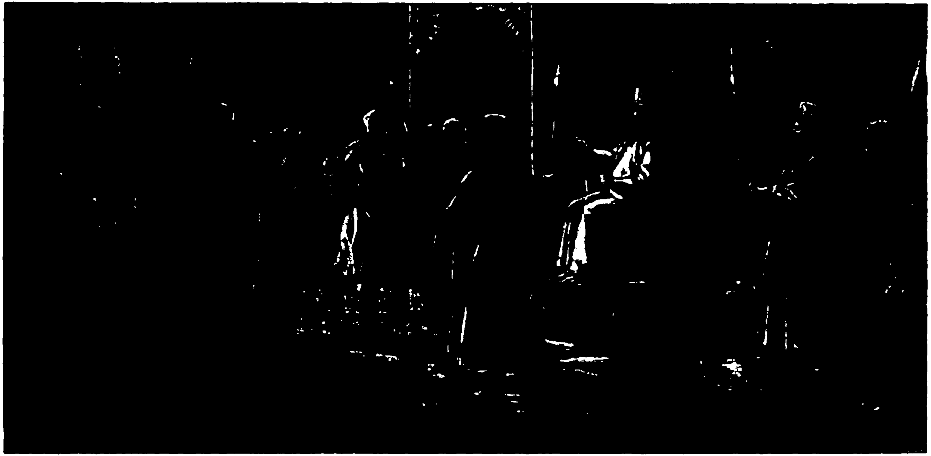
What a prospect for the Greeks! They heard with terror of this multitude moving ever steadily onwards to overwhelm their small country and its small army; especially as at that time there was so much jealousy among the states that it seemed impossible to get them to act together. The Persians had to pass a ridge of high mountains which protected Athens to the north, and between the bog on the edge of the sea and this high ridge there was a pass near some hot springs. This was the pass of Thermopylæ.

Here was fought one of the best and bravest fights in history, one of the few fights where failure was in effect a never-dying victory. A few Greeks held the pass through two days and nights against the hosts of Persians and Medes. These were slain in heaps as they rushed on the solid wall of Greek spears. But a traitor told the Persians of another pass in the mountains, and led the army round by it in the darkness. Some of the Greeks went away; but the little band of Spartans, under Leonidas, determined to conquer or die, and made a final stand, surrounded by overwhelming

THE GOLDEN CITY OF THE PERSIAN KINGS



This is how the magnificent palace of Darius at Persepolis looked in the days of its glory. The ancient writers tell us that no other city could be compared either in beauty or in wealth with Persepolis, "the glory of the East."



The enormous treasures gathered at Persepolis were obtained by oppression and extortion such as few empires have ever practised. Here we see a Persian king in his palace, receiving tribute from conquered peoples.

Not far from the ruins of ancient Persepolis are some wonderful rock tombs, each carved out of the solid stone, with the face of the rock sculptured to represent a temple or palace. Some of the niches where the bodies of kings and princes were laid long ago are now used by the tribesmen as store-places for their grain.

numbers. All of them were shot down by Persian arrows to the last man. And so Xerxes got to Athens. Nearly all the inhabitants had fled. He killed the remaining few hundreds, and set fire to the fine buildings, and then marched on to witness the great sea fight from a cliff looking over the Bay of Salamis. No doubt he felt quite certain that his splendid fleet of over a thousand ships, well equipped and manned, would make short work of the small Greek fleet, which numbered only about 350 vessels.

But, as the day wore on, Xerxes became more and more uneasy, and at last started up from his ivory throne, which was carried round with him, in wrath and dismay, as his thousand ships crowded and jostled together in the narrow mouth of the bay, so that many were run down and sunk. Again and again the loud battle-cry of the Greeks came up to him as they dashed their brazen prows into the ships nearest them, and boarded one after another with the help of their long spears.

HOW THE GALLANT GREEKS DROVE THE HUGE ARMIES OUT OF EUROPE

Xerxes raved like a madman before night, as he saw his ships, squadron after squadron, turn and sail out to sea. But he, too, ran away homewards, and left his general behind with three times as many men as the Greeks could gather, to finish the campaign later. A few months later this remnant of the great host was destroyed and scattered at the battle of Platæa. And so ended the great Persian wars in Europe, when gallant little Greece for twelve years withstood the largest armies ever collected.

There was a little boy born in Halicarnassus, one of the Greek states in Asia Minor, in the midst of these exciting days when Asia threatened to conquer Europe. He was four when the battles of Thermopylæ and Salamis were fought. When he grew up, his great object in life was to write a full account of the Persians and their world struggle with the Greeks, so he collected materials for his work in various parts of the empire. This was Herodotus, the Father of History, who so admired the Nile and great buildings of Egypt, also the mighty walls, hanging gardens, and temples of Babylon. Many of his wonderful stories have been proved to be fables, but, in his pleasant, chatty way, he gives us much fact as well as fiction about those soul-stirring times, when actual witnesses of the great events about which he wrote so vividly were still alive.

THE BEAUTIFUL QUEEN OF PERSIA WHOSE STORY IS TOLD IN THE BIBLE

For details of the court life of Xerxes, we may turn to the Book of Esther in the Bible, for many believe that King Ahasuerus in that story is none other than he who was carried round in the ivory throne and threw fetters into the unruly Hellespont when its storms destroyed the first bridge of boats. However this may be, we can gain a good idea of how the rulers of Persia lived in the days of their great power, by clothing the visions of magnificent palaces shadowed in the ruins unearthed at Susa and Persepolis, with the vivid account of life at their court, as seen by the beautiful and patriotic Jewess who became Queen of Persia.

Artaxerxes, one of the sons of Xerxes, comes into a Bible story too, for he had a Jewish cup-bearer, Nehemiah. He was allowed to leave his duties at court, and go to help his brethren to rebuild the walls of Jerusalem and reorganise the government of the state.

In the reign of Darius II., another of the sons of Xerxes, Persia lost Egypt, which it had held, in spite of many rebellions, for more than a hundred years. There were other signs that the great empire was beginning to break up.

THE FALL OF THE PERSIAN MONARCHY AND THE RISE OF ALEXANDER

Among these signs were dark plots and quarrels between the nobles and princes, which came to a height when two of the sons of Darius II. were struggling for the throne. Cyrus, the younger, knowing that Greek soldiers were better than the troops gathered together from different nations in Asia, paid 13,000 Greeks to come and help him fight against his brother.

Cyrus was slain and his army defeated at Cunaxa, near Babylon. The Greeks, now reduced to 10,000 men, fought their way back to the coast amid difficulties under the command of Xenophon, the famous historian. The story of this retreat we read on page 5076.

Among the many things these travellers could tell their countrymen on their return were tales of the low state into which the Persian monarchy had fallen by means of indulgence in luxury, by quarrels and weak rulers, and ambitious satraps, or governors, of provinces. They reported, too, how badly the army was managed.

For a time the affairs of Persia revived under a strong king, Artaxerxes III., who subdued Egypt again, and put down many rebellions in the Mediterranean countries. But his reign was cut short, and the kingdom passed to Darius III., one of the weakest and most unfortunate of rulers. And this was the man who had to meet one of the greatest generals of whom history makes any mention, Alexander the Great.

Alexander was the king of the Greek state of Macedon. His father, Philip, who had heard the tales of Xenophon and his men, had died in the midst of his plans for the invasion of Persia; his ambitious son was only too eager to finish and fulfil them.

THE CONQUERING MARCH OF ALEXANDER THAT DESTROYED THE PERSIAN EMPIRE

Crossing the Hellespont in the year 334 before Christ, he won victory after victory in Asia Minor, Phœnicia, and Egypt, with his well-disciplined army, and in the third year of his expedition he won one of the great battles of the world, near Arbela, where the contest was practically decided. The great capitals, Babylon—by this time shorn of much of its former grandeur—Susa, Persepolis, all fell before him; the latter was burnt to the ground. It is thought that this disastrous fire was lighted in mad vengeance against the wrongs Greece had suffered from Persia.

The miserable Darius III. was slain soon after by one of his own satraps, and so was extinguished for a time the empire founded by Cyrus the Great about 200 years before.

We are told that Alexander visited the tomb of this hero, which is still standing, and read the inscription: "I am Cyrus the King." For long years priests had guarded the golden coffin which contained the dust of the founder of the Medo-Persian monarchy, now destroyed. Alexander never returned to Greece. He passed on to the Indus and Central Asia, founded many cities, in which he settled Greek colonists, and fixed his capital at Babylon. But his early death prevented his carrying out the vast schemes he had in view to organise as a great world empire the immense Greco-Persian dominion he had conquered.

THE COMING OF THE MEN WHO CRUSHED PERSIAN FREEDOM FOR 400 YEARS

His generals fought wildly for sovereignty after he died, and assassinations, conspiracies, and bloodshed lasted many years, till one named Seleucus, about the year 312 before Christ, became the first of a line of Greek kings of Persia, called after him Seleucidæ. His capital city of Seleucia was on the Tigris.

The difficulties of the Greek rulers and settlers in Persia were even greater than ours have been in India, and rebellions and troubles of all kinds harassed the successors of Alexander, who gradually lost ground.

Then, when the Persians began to hope for a chance of regaining their independence, a new and vigorous power suddenly arose in Western Asia, and established an empire in which they were forced to remain as a subject province.

The new-comers were of the same stock as the Medes and Persians, though not so clever or refined. They are known in history as the Parthians, called after the name of the country north of Persia, to which the tribe exiled itself when unable to maintain its freedom against the Greek settlers in distant Bactria.

We should know but very little of the Parthians, who ruled in Persia for over 400 years, but for the fact that they were constantly fighting as the years passed on against the Romans, whose historians give us information about the great heroes of this race. Fortunately, too, we have many of their portraits, cut sharp and clear, untouched by the hand of Time or of man since the days they were modelled from life centuries ago.

THE FIGHT BETWEEN PARTHIA AND ROME FOR THE EMPIRE OF THE EAST

Little could Mithridates the Great, Orodes, and other Parthian heroes have guessed that the likenesses engraved on their coins would be eagerly sought for in far-off times and used to form a portrait gallery of their race. One can see many of them in the British Museum, among those of the rulers who went before and came after them in Western Asia. In the Story of Rome we read how the mighty armies of that empire rolled up eastwards against the Parthians, time after time, like waves dashing on a rocky shore. Sometimes the Romans had the advantage, sometimes the Parthians, but in the end, just as the Parthian Empire was nearing its fall, its last ruler, Artabanus, about 216 Anno Domini, wrested a huge sum of money from the Romans as a war indemnity, after two crushing defeats.

About ten years later, the long-prepared and long-delayed insurrection of the Persians occurred, in which they declared their independence. Artabanus was slain, and a king, Artaxerxes, or Ardashir, descended from the old Royal House, became head of a new Persian Empire, often called the Sassanian.

For six centuries the Persians had had to submit to a foreign yoke, first that of Alexander and his successors, then to that of the Parthians. But during that time they ever bore in mind the ancient glories, the purer religion, and the future hopes of their race.

HOW PERSIA ROSE TO POWER AGAIN AFTER HUNDREDS OF YEARS

When the right moment came, by swift revolution and decision, the old empire sprang to life once more. On the back of the coins of Artaxerxes is a picture of the sacred fire, tended by a priest, showing the religious side of the uprising and remaking of the empire. The idols of the Parthians were destroyed, and the magi, or wise men, who taught the old faith of Zoroaster, were gathered together at Persepolis and given an important share in the government.

It was at this time that the sacred precepts and sayings of the Persians were collected and put into writing. We can read to-day these beautiful teachings in the Zend-Avesta, as the Bible of the Persians is called. It is still the guide of many learned and good men, the Parsees of Persia and India.

Artaxerxes also re-established the government much after the form of that of Darius the Great. Much of the art of the Sassanian times has been recovered from the ruins of their great cities, and a deeply interesting study it makes, bringing home to us how much wealth and magnificence and taste for the beautiful belonged to these centuries of national revival. Many were the wars during the reigns of the Sassanian kings, some of whom were splendid generals. Among them there stand out the names of two kings named Sapor, and of two named Chosroes. The first Sapor accomplished the brilliant feat of making the Roman Emperor Valerian surrender with all his army; this event is shown on a huge rock sculpture.

THE BREATHLESS RACE TO THE GATES OF THE CITY

The second Sapor overthrew the Emperor Julian in a most thrilling campaign. The Romans had a large fleet of boats on the Euphrates, and in a sculptured picture on a rock we may see Julian transporting his fleet and army by canal from the Euphrates to the Tigris and meeting the Persian army with its elephants and chariots. Then there was a breathless race to get to the important city of Ctesiphon. The Persians dashed in first and just closed the gates upon their pursuers.

The end of this exciting campaign saw the great Julian dead, and his successor was forced to listen to terms from Sapor such as the all-conquering Romans had never before granted.

The reigns of the two Chosroes bring us to the times of conflict with the Eastern emperors, Constantine and Heraclius, as we read on page 3878.

HOW PERSIA LAY UNDER THE CONQUEROR'S HEEL FOR 800 YEARS

The conquerors of the Eastern Empire were also the conquerors of Persia. When the famous leathern standard, the blacksmith's apron studded with diamonds and other precious stones, fell into the hands of the Mohammedans after four days of terrible fighting, the nation it had so often led to victory, ever since the far-off days before Cyrus, passed into subjection, and lay under the heel of the conqueror for over 800 years.

The national religion and the national independence were gone, but the spirit was not dead nor the national ability and courage, and at last the time came for Persia to rise again with renewed life and strength. We read its later story on page 3873. It may well take pride even to-day in its long and wonderful record of the past.

The next story of Countries is on page 5121.

THE REFORMATION MARTYRS

It is a happy time for the world that men have at last come to see that it is wise and just to suffer every one to worship God in such fashion as his conscience bids him, and to say what he truly believes without fear, whether it be the thing that other folk believe to be true or not. For we cannot force anyone to think that true which he is sure is untrue, though we may frighten him into saying he thinks so. But in the old times, especially in the time of the Reformation, of which we read in these pages, people thought they could force other folk to think what they were told, as well as to do and say what they were told; and many times in history there have been great persecutions when people would not be persuaded to deny what they really believed, or to worship false gods, or to worship the true God in a way which seemed to them to be wrong.

GIVING UP THEIR LIVES

MEN AND WOMEN WHO DIED FOR WHAT THEY BELIEVED

CONTINUED FROM 4959

In our own country there has been less persecution for religion than almost anywhere else; but still people have been put to death for professing a forbidden religion. In Europe there has been much bloody persecution. When England and Scotland were becoming Protestant countries, the time of which is called the Reformation, there is a long roll of martyrs who died for their faith; some because they would not deny the old belief, but many more because they would not deny the new belief which they had learnt.

Now, of these martyrs, there were some who were put to death not because they were heretics who made division in the Church, but because King Henry VIII. or Queen Elizabeth said they were traitors, who sought to set the power of the pope above the power of the king; and these were not burned at the stake, but were executed for treason. Yet the Roman Catholics who died in this way were none the less martyrs, slain for their faith's sake, of whom some deserve to be held all the more in honour because they had never sought to harm the king or the queen, but only held fast to what they believed to be the truth.

Of these the most famous are Sir Thomas More and Bishop Fisher, and, in after days, Edmund Campion. The two first were cast into prison because, being ordered by King Henry VIII. to take an oath that the king was the head of the Church, they would not obey, though they knew that for refusing they must die. But Campion came to England in the time of Queen Elizabeth, when it was forbidden to teach the Roman Catholic doctrines, and strove to win back the people of England to the old faith. Others who were joined with him were seeking the overthrow of Elizabeth herself, and, though Campion was innocent of that, he was put to torture that he might confess and show who was in this plot. But he cared only to declare his loyalty to his own faith, and would speak nothing against any man. And so for his faith's sake he perished.

Of those who died at the stake by fire for their belief in the reformed religion, called Protestantism, without any charge of aught else but of holding or teaching doctrines forbidden by the Church, there were many; and some of them even in the reign of Henry VIII., who defied the pope and set his authority at naught. For in all else Henry avowed himself a true believer in the doctrines of the Roman Catholics; and so, though he beheaded Fisher and More, and slew many more Catholics for what he called treason, he would have men and women burned if they preached forbidden doctrines. Of these, two above all others must be held in honour. One was a learned and pious scholar, named John Frith, who would not deny the reformed doctrines, but was put to death chiefly because he declared that it was wrong to slay any man for his belief; so that he was the first martyr who died for claiming that every man ought to be permitted to obey his conscience.

A BRAVE WOMAN WHOSE FAITH COULD NOT BE SHAKEN BY SUFFERING

The second was a lady named Anne Askew, who was zealous in spreading the new teaching; and though she suffered such terrible torture that the Lieutenant of the Tower stayed his hand and would inflict no more on her, yet she would not recant; nor would she do so even when she was brought to the stake and promised a pardon.

But her death seemed so cruel a thing that no others were tortured for many years afterwards.

In Scotland, the first Protestant martyr was Patrick Hamilton, who was burned at the stake, and, after the fire had been long alight, held forth his arms into the flames to show that his courage was unabated. Following on, the most famous of these sufferers was George Wishart, the teacher of John Knox, after whom no others were burnt in Scotland.

But nine years after Anne Askew's death, when Queen Mary was on the English throne, and all men were bidden to return to the Roman Catholic faith, there was a great persecution, so that in four years there were nearly three hundred persons who died martyrs for the Protestant faith; yet all of them might have won pardon by recanting before the judges and professing that they had erred in their belief.

Among those who died by fire in the first year were priests notable for their learning and good works. With them were four bishops, and, soon after, the Archbishop of Canterbury himself; and then no more persons of high estate were executed, only those of humble station.

HOW THE SUN BROKE THROUGH THE SKY AND SHONE UPON THE DYING MARTYR

There is a beautiful story about one of these last, a youth named William Hunter, who, when he was bound to the stake, besought those who were standing by to pray for him, to whom one made the cruel answer that he would pray for him no more than for a dog. "Then," said he, seeing that by man he was refused even this kindness, "Son of God, shine upon me!" And straightway the sun broke through a great cloud that was overhead, and so bright a light fell upon him as he looked up to heaven that he could not but turn his face aside. And those who looked on thought that God had answered his prayer.

There was another lad, whose name is forgotten, to whom the judge said in pity: "Think before you answer. Can you bear to suffer the fire? Recant, and you will be free and safe." But for answer the lad thrust his hand into the flame of a candle, and so held it.

Some there were who met their cruel doom with glad triumph. Such a one was Rogers, a famous preacher, who had helped in translating the Bible into English, who, when the fierce flames leaped about him, bathed his hands in them as though they had been cold water.

And another was Rowland Taylor, the beloved Vicar of Hadleigh, who, having been condemned in London, was carried back to his own parish to die. Then, his wife and daughters coming to meet him on the way on a dark winter morning, he spoke words of comfort, bidding his wife be of good cheer, for God would be a father to his children.

THE FOUR BISHOPS WHO WERE BURNT BY QUEEN MARY

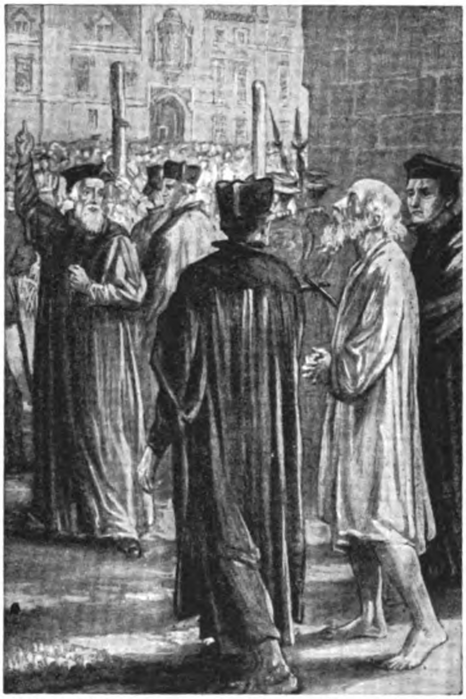
The four bishops who suffered martyrdom were Robert Ferrar, John Hooper, Nicholas Ridley, and Hugh Latimer. Of these, Ferrar was one who had made no great stir, but, being made a bishop in the Protestant reign of Edward VI., was disliked for seeking to reform evil habits among his people; and being already in prison, having sundry foolish charges made against him, when Mary came to the throne he was not let go, but was charged with heresy, and so died a martyr.

Hooper and Ridley were both very zealous reformers, but Ridley was the man whose learning and wisdom won the trust of Archbishop Cranmer, and it may be that he, more than any other, gave to the laws of the English Church the shape which they have to-day. But Hugh Latimer had already become a famous preacher when Ridley was but a young man, and had found favour with King Henry because he spoke so freely and frankly. When some would have charged him with heresy, Henry set

THREE MARTYRS OF THE REFORMATION

Sir Thomas More, who succeeded Cardinal Wolsey as Lord Chancellor of England, was one of the noble army of martyrs during the Reformation period. He could not recognise Henry VIII. as head of the English Church, and for this he was sent to the scaffold. In this picture we see him consoling his daughter after his condemnation.

Archbishop Cranmer, who had signed a statement that his Protestant faith was all error, afterwards repented, and went to death boldly, as shown here. The hand that signed the document he held out to be burnt first.



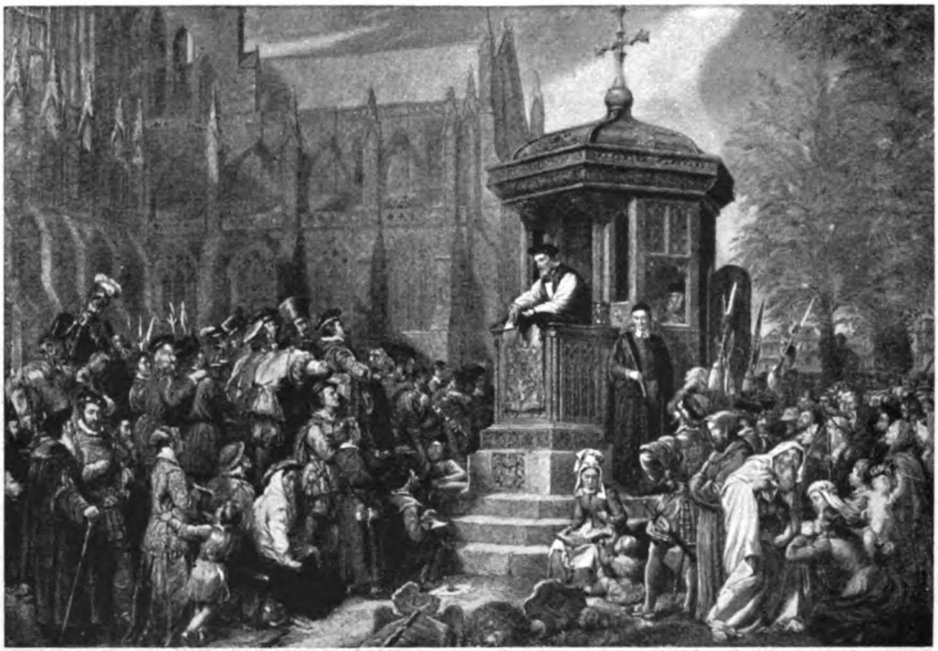
Bishop Ridley, who is shown here going to the stake, was one of the most learned of the Protestant martyrs. As a bishop he had been very tolerant, but he was condemned and burnt with Latimer at Oxford.

them at naught and made Latimer a bishop, and a right good one. Ridley and Latimer and Archbishop Cranmer were very great friends, and when Mary laid hold on them they were all cast into prison together, and there they often held council with one another.

But afterwards these two were parted from Cranmer, and they were doomed to die at Oxford. When they were taken out to be burned, Ridley showed a stout courage; and old Latimer spoke words that have rung through the ages, saying: "Be of good comfort, Master Ridley, and play the man: we shall this day light such a candle, by God's grace, in England, as I trust shall never be put out."

The story of Cranmer is the saddest, and yet the most glorious of all. For he was by nature a timid man, yet one who had been forced into his high estate by King Henry. And in Henry's reign he had sought always to persuade the king to suffer Luther's doctrines to be taught, and had won from him leave to set up the Bible in English in all churches; and after that, in Edward's reign, it was he who, with the aid of Ridley and others, prepared the Book of Common Prayer which is used in the services of the Church of England. The older he grew, the more he became assured that the new doctrines were right, and because he was archbishop, and head of all the clergy in England, Queen Mary was the more anxious that he should be persuaded publicly to recant his heresy.

To this end he was parted from Ridley and Latimer, who helped to strengthen him, and was caused to look from the window of his prison when they were being martyred. Then there came upon him great fear and doubting, when he had none to lean upon, and at last he was persuaded to write that he had erred from the beginning, and that what he had taught for truth had been falsehood. Yet, having fallen, his courage came back to him at the last hour, and he proclaimed that he repented not what he had taught, but his grievous sin in what he had just written denying the truth. And so he, coming to the fire, held forth in the flame the right hand which had offended in penning those words, so that it was first consumed, and he never flinched till the life was gone from his body. And because of his fall men account him the least among the martyrs for the faith, yet it may be that he was the greatest of them all.



HUGH LATIMER, THE ELOQUENT BISHOP AND MARTYR, PREACHING AT ST. PAUL'S CROSS

The next Golden Deeds are on page 5171.

MISS DOLLIE AND CAPTAIN BLUE

CONTINUED FROM 4938

Babs was a pretty little girl, with blue eyes and dark hair, but she had a great fault. She was very wilful, and when she did not get things all her own way she became bad-tempered.

One night she was sent to bed early for quarrelling with her brother, Ronnie. For some time she lay quiet and still, cuddling her beautiful doll; and then, with another outburst of temper, she took poor Miss Dollie and gave her a severe beating.

"I don't love you any more," said Babs to Miss Dollie. "In fact, I don't love anybody!"

Rising up in bed, she flung her doll right across the room, and then snuggled down between the sheets and fell asleep.

Poor Miss Dollie fell face downwards in the corner of the room, and broke her nose. But, being a very sweet-tempered doll, she did not utter a word of complaint, and remained in the place where she had fallen. Half an hour later nurse came and put Ronnie to bed; and, after vainly calling twice to his sleeping sister, the little boy also fell asleep.

"How unhappy I am!" said Miss Dollie, when she saw that the two children were sleeping, and that she could talk without danger. "How unhappy I am! Just because I seldom speak, because I never eat much, and never break anything, and never cry, people imagine that I can't think, see, and feel. They are mistaken."

"They are indeed mistaken, Miss Dollie!" exclaimed Captain Blue, a very fine and handsome tin soldier, whom little Ronnie earlier in the morning had thrown into the same corner where Babs had flung her doll.

"Children fancy that, as we don't cry out when they hurt us, we never suffer. But we do suffer," he said, with a deep sigh. "Just look at my poor head! Ronnie has almost twisted it right off my shoulders."

"And just look at my nose!" said Miss Dollie. "Babs has broken it clean off. Is it worth while having real golden hair, and well-painted red cheeks, and blue eyes that open and shut, when one is ill-treated like this?"

"I am indeed very sorry for you, Miss Dollie," said Captain Blue; "but, alas! I cannot console you. I can no more glue your nose on than you can put my head straight. Toys we are—ill-treated toys—and toys we shall remain for ever and ever."

"No, no!" said the doll, in a strange and mysterious voice. "I certainly shall not remain a toy for ever, and neither, I hope, will you." Then, seeing that the tin soldier was now very curious, she added: "Would you like to hear the story of my life?"

"I dearly love listening to stories, Miss Dollie," said Captain Blue, "especially when they are real stories."

"Mine is a very real story," said the doll sadly. "My dear Captain Blue, I dare say you will scarcely believe it, but

I was not always a thing with a china face and a china body, and eyes that open and shut. Not very long ago I was a pretty little girl, and I lived in a beautiful house, and had more toys than I could play with. Unhappily, I was, like Babs, a very naughty girl, and at last I became a nuisance to everybody around me. One evening, when I had been sent to bed for poking my dollie's face into the fire, a fairy came into the nursery and changed me into a doll. 'A doll you shall remain,' she said, with a terrible look, 'until a little girl as naughty as you has inflicted on you the suffering that you have inflicted on others. And you shall not be restored to your proper shape,' the fairy went on, 'until this naughty little girl herself becomes a good little girl.'"

ONE EVENING, WHEN I HAD BEEN SENT TO BED, A FAIRY CAME AND CHANGED ME INTO A DOLL

"Well," said Captain Blue, glancing in pity at her broken nose, "I should say that the first part of your punishment is over."

"Yes," said Miss Dollie, "Babs is certainly as naughty as I ever was. But will she ever become a good little girl? I am afraid that the fairy will come and change her also into a doll. I dare say you know, Captain Blue, that all dolls are little girls who have been transformed because they became very, very naughty?"

"No," said Captain Blue, "I did not know that. But perhaps, Miss Dollie," he added, in a strange whisper, "you may not be aware of the fact that all toy soldiers are really little boys who have been transformed by an old wise magician. I was an exceedingly wicked little boy. I used to rush about the house with my wooden sword, knocking down everything in my way. I broke my mother's flower-vases, and upset my daddy's ink-pot. So I was changed into a toy soldier, and I shall not be delivered from the spell until the naughty boy to whom I belong becomes a good boy. But I am beginning to despair of Ronnie. You see in me, Miss Dollie, the only survivor of a great army. Yes, I had forty-eight men under my command this morning, but Ronnie has already broken off all their heads, and he flung me into this corner because mine would not come off easily. It was this that made me say: 'Toys we are — ill-treated toys — and toys we shall remain for ever!'"

"For my part, as I have said," exclaimed Miss Dollie, "I still hope for better things. Have you not noticed how troubled the sleep of Babs has been since we began to talk? I am certain she has heard all we have said, for she is only in a sort of half-sleep. Of course, it seems to her just a dream; but she will remember it in the morning, and perhaps she will become a good girl, and get Ronnie to be a good boy."

And that is what happened. As soon as Babs woke up the next morning, she climbed on Ronnie's bed and told him her wonderful dream. Both the children resolved to be very good for the sake of the doll and the tin soldier; and when, a few days afterwards, their delighted mother took their broken toys away and replaced them with new ones, they knew that Miss Dollie and Captain Blue had at last been changed back into a little girl and little boy.

THE THIEF WHO TURNED POLICEMAN

When Vidocq made up his mind to break away from the burden of his past, as we read on page 4933, there was only one way by which he could escape from prison and remain a free man. If he escaped by a hole in the wall, by bribery of gaolers, by disguise, or by any other of the hundred and one ways which had made him notorious, it would only be to find himself hunted down by the whole police force. No; there was but one way. He must become a policeman himself!

So he made his offer to the Chief of Police at Paris, and was presently released. Instead of a convict he became a spy. He was free, but his freedom lay in capturing villains. So long as he lived, destiny seemed to insist that his life should have to do with crime. The Chief of Police let him free on condition that he brought a certain number of criminals to justice every month. His release was cleverly managed. He was taken from the prison in a car, and, wearing handcuffs, was driven at a rapid pace some distance through the city to a quiet place, where his handcuffs were taken off, and he was then allowed to escape. Far and wide spread the news that the notorious Vidocq had once more escaped; and Vidocq, hailed with enthusiasm, took up his dwelling among the lawless and the abandoned. How he must have smiled as they praised this last wonderful escape!

One of his first adventures was desperate. He received an invitation from a criminal named St. Germain to join with him and two others in raiding the house of a banker. St. Germain was not an ordinary burglar. He had been a clerk, was well-mannered, skilful, brave, and supposed to be a favourite in polite society. Vidocq thought to himself: "Here is a very easy plan for me to take all these scoundrels together"; and he consented to join the venture.

AS SOON AS THE CUNNING SEXTON LAID DOWN THE SPADE, VIDOCQ PICKED IT UP

But, to his discomfiture, he found that the burglary was to take place that night, and that St. Germain insisted on all four conspirators remaining at his lodgings till the hour came to sally out. Vidocq, therefore, had no chance of preparing a scheme; and, moreover, if caught by the police, he would have the greatest difficulty in proving satisfactorily to them that he was only working as a spy.

The others began to sharpen knives and clean pistols. Vidocq threw himself lazily upon a bed. He said presently that he had at his rooms some bottles of good wine, which would make the hours pass. St. Germain offered to send for them. A porter was despatched to Vidocq's wife, telling her to bring the wine.

While this man was on his way, Vidocq, lying on the bed, wrote a secret line for Annette, his wife, telling her to follow him in disguise and pick up anything he dropped. When she arrived with the wine, pretending to kiss her, he slipped this little screw of paper unobserved into her hand. Later in the day he suggested that it would be a good thing to inspect the house they intended to rob while it was daylight. They knew it, but he did not. He liked to know where he was going.

The others agreed, and they went forth. Vidocq saw the place, and that was enough for him. On the way back, St. Germain entered a shop to buy black crêpe for their faces, and Vidocq hastily wrote a few lines for the police. As they walked home together, Vidocq dropped this paper, his wife picked it up, and a few minutes later it was in the hands of the police officials.

When it was midnight the four men started out. They made their way quickly through the deserted streets, and came presently to the wall surrounding the house. All was still. They donned their crêpe masks, and set to work. They climbed one by one up the wall. Three of them dropped noiselessly down into the shrubs on the other side. Vidocq remained for a moment astride the wall. Suddenly out of the bushes sprang a force of police. The burglars fired their pistols, injuring some of the police; and Vidocq rolled off the wall as if shot by a bullet. The burglars were captured, but Vidocq was unhurt.

And now comes the story of an old sexton, greatly trusted for his piety, and highly respected by the priest and people of his parish. The priest, fearing the coming of the Cossacks, determined to bury the church plate. Another parishioner, a rich goldsmith, determined to bury all his jewels with the sacred plate. Who but the pious sexton should dig the hole ? The hole was dug, the treasure buried, and the sexton crawled off to his duties. But one day he came crying to the priest: "The hole ! The hole ! " And, lo ! there it lay open and empty—the treasure gone !

No one could discover the thief, and the matter was at last entrusted to Vidocq. When he had heard the story, he said: " Arrest the sexton." And the pious sexton was arrested on suspicion. Then Vidocq disguised himself as a Jew pedlar, and one day presented himself casually at the door of the sexton's cottage. He offered things to sell, and offered to buy anything the sexton's wife might have in the house. But the old woman offered neither plate nor jewel.

The next step was to disguise himself as a German valet, and to get arrested and thrown into the same cell as the old sexton. At first the sexton would have little to do with his fellow-prisoner, but when Vidocq showed him that he had a gold coin sewn inside each of his buttons, and when, further, he called for a bottle of wine, the sexton became more friendly, and they exchanged stories.

Vidocq said he had buried some valuables belonging to his master in a wood, and when he got out of prison he would get those valuables, escape to Germany, and live a merry life.

The sexton said that he was tired of his wife, and that if he could escape he, too, would go to Germany and live a merry life. Vidocq was now certain that the crafty old fellow had got the treasure. He instructed the police to move them to another prison, and to bind them so loosely that they could escape. This was done. The spy and the sexton escaped into the woods, and then the sexton came to the place where the treasure was buried.

A spade was concealed in some bushes, and with this he dug up the spoil. As soon as he laid down the spade, Vidocq picked it up and said quietly that he would knock the sexton on the head if he resisted. Marched off to prison, the old sexton kept on muttering to himself: " Who could have believed it ? He looked so simple ! "

For nearly twenty years Vidocq lived this exciting and dangerous life. It is asserted that he captured as many as 20,000 criminals in the rookeries of Paris alone. In 1812 Vidocq became the head of a detective agency in Paris, which proved successful ; but it was thought that Vidocq himself originated many of the burglaries that he showed such ingenuity in detecting, so, after thirteen years in office, he was superseded.

After one or two ventures in trade, Vidocq at length became a lecturer. He came as a lecturer to London, and was a marvellous success.

The author of "The Romance of History" says: "No spectator could forget the tall form, now grown portly, in drab breeches, white silk stockings, and shoes with silver buckles, the bull neck, the strange face sloping upwards like a pear, the ears pierced with slender gold rings, the grizzled hair, and the bushy brows above the steel-grey eyes which glittered like a lynx's. . . . He told the story of his life; he donned his chains, his galley dress, and the huge iron balls which he had worn at Brest; he brought forth relics of great malefactors, and as he told his stories he changed his face and decked himself in the disguise which he had worn on each occasion."

This extraordinary man lived to be eighty-two years of age, and kept himself in comfort to the end of his days by the money he had earned in London. It is quite clear that all his crimes were committed because the law did not try to make him better, but, on the other hand, made it impossible for him ever to do better. There was always some good in him, and he would undoubtedly have made a magnificent soldier. But the chance of a fresh start never came, and Vidocq lived all his life in an atmosphere of crime.

GOLDILOCKS AND THE GOLDEN CROWN

MANY years ago there was a poor herdsman who lived in a log-cabin in a great forest with his wife and his little son. The boy had long, yellow hair which shone like sunshine, and because of this he was called Goldilocks. One night he went to meet his father in the forest, and lost his way, and could not get back home. Happily, it was autumn, and there was an abundance of nuts and blackberries growing on the trees and bushes, so Goldilocks did not want for food.

After wandering about for three days, he got into a wild, lonely place, where the trees grew so dense that he could scarcely make his way through them. Then, however, the forest thinned out, and Goldilocks came to the shore of a blue sea. Some fishermen were dragging their fishing-smack down the beach, and one of them caught sight of Goldilocks, and cried: "What a handsome boy! Let us take him with us. We want a lad in the boat."

Having now lost all hope of finding the log-cabin in which his father and mother lived, Goldilocks was feeling very sad and lonely, and he was glad to go with the fishermen. Though they fished a long time, they caught nothing.

At last an old fisherman with silver hair gave the net to Goldilocks, saying: "Now you try, my lad. Perhaps you will have better luck."

Naturally, Goldilocks did not know how to handle the net; he let it down in a tangle, and it seemed to catch on some rock in the deep water. Blushing with shame at his awkwardness, the boy set his foot against the bulwark, and tugged furiously at the net, and at last brought it up. No wonder it had felt heavy, for glittering in its meshes was a crown of pure gold.

"Hail, O King!" cried the old fisherman, kneeling down at the feet of Goldilocks. "It is now a hundred years ago," he said to the astonished boy, "that the last of our kings died. Having no heir to succeed him, he cast his crown into the sea, and declared that his throne must remain unoccupied until some happy person won it by recovering the crown."

The fishermen at once turned their boat in towards the shore, and Goldilocks stood at the prow with the bright crown glittering on his head. Tidings of his success resounded from ship to ship, and travelled over the sea and across the land. Multitudes of people came to meet him, singing for joy and waving green branches, and strewing his path with flowers.

On reaching his magnificent palace, which stood in the centre of a rich and noble city, Goldilocks at once sent a thousand of his best soldiers into the forest. At the end of a week they returned in triumph, bringing Goldilocks' mother and father with them, who were unable to believe in the good fortune of their little son, until at last they saw him, surrounded by many courtiers, sitting on the throne with a golden crown upon his head.

THE MARCH OF THE TEN THOUSAND

Of all the successful struggles against overwhelming odds that history relates, few can compare with the great march known as "The Retreat of the Ten Thousand." Famous in ancient times as a wonderful military achievement, it remains to this day a stirring record of courage and endurance.

In 401 B.C., Cyrus, son of Darius, made war against his brother Artaxerxes, who had succeeded to the throne of Persia. By various pretexts and deceptions he secured the services of about thirteen thousand Greeks, who marched with the rest of his army into Asia. At Cunaxa, near Babylon, Cyrus was defeated and slain, and the Greeks found themselves alone in the heart of a hostile continent. They endeavoured to come to an agreement with Tissaphernes, the victorious general, to allow them to return safely. Tissaphernes met them with fair words; but when he had won their confidence he invited their leaders to a magnificent banquet, and treacherously slew all who came.

We may picture the plight of the unfortunate Greek army, deprived of many of their leaders, thousands of miles from home and kindred, and surrounded on all sides by hostile forces. It was impossible for them to push on into the unknown country; it was impossible for them to remain where they were. There was nothing for them but retreat, and retreat involved a long and terrible march through rough lands peopled by savage races. For the moment they were in the depths of despair.

In this perilous moment, when all seemed lost, a leader was found—a man who had joined the army as a simple volunteer for love of adventure. As the soldiers lay about, listless and dejected, Xenophon, an Athenian knight, asked himself: "Why do I lie here? The night is creeping on. The morning will probably bring the enemy, and defeat will be followed by insults, torture, and death. Am I to wait and do nothing until some officer comes forward to give counsel and to act? To whom am I to look for this; and am I not old enough for the task?"

He arose, and summoned the captains. To them he explained the danger of their position, and showed them that their only hope lay in their weapons and right arms. He himself, he said, was willing either to follow or to lead. His eloquence won them over. They acclaimed him as their leader, and at once preparations were made for the retreat.

The wonderful march began. All the baggage that could be spared was burned, in order to leave as many soldiers as possible ready for action. Their course was marked out for them—they could only strive to reach the coast. They crossed a broad river, and encountered the first attack of the enemy. Slingers and mounted bowmen, whose weapons carried farther than those of the Greeks, hung on their rear and flanks and harassed them. Xenophon tried to repel the attack, but was defeated with great loss. To restore the spirit of his men, the leader took the blame of the defeat on himself, and reorganised his forces.

The Greeks marched on. Soon they came to a country which presented enormous difficulties to their retreat. Their hearts sank as they saw the terrible rocks and narrow ravines of a land inhabited by a fierce fighting race of hillmen. Had they once been caught in the narrow passes of this country, they would have been overwhelmed. They could only escape destruction by moving with almost incredible swiftness from height to height before the enemy could reach them.

Day after day they made their gallant marches till wild Armenia stretched before them. This country was swept by great winds and heavy snows, making it almost impassable. Moreover, the Greeks were crossing it at the most terrible season of the year—the winter.

Buffeted by tempests, drenched and blinded by raging snows, they struggled along. Their wonderful spirit urged them on; and not only did they repel the attacks of their foes, but they assumed the offensive, stormed the camp of the ruler of the province, and carried away much booty.

Then they crossed the Euphrates near its source, and encountered a wind of piercing coldness, while they forced their way with dogged persistence through snow that lay six feet deep. On they pressed, hampered by the

THERE IN THE DISTANCE LAY BEFORE THEIR GAZE THE BLUE WATERS OF THE EUXINE SEA

presence of many sick and wounded soldiers. Behind them were the enemy, ready to fall upon them at any moment. A feigned attack drove these away, and the Greeks began to approach the plains.

Their way was now impeded by a river, which they crossed, only to find that the pass leading to the open country beyond was blocked by the tribesmen of the district. Although hampered by their ignorance of the country, and fighting in the darkness of night, they carried the pass and emerged victorious into the plain.

Another river lay in their path. They crossed it, and neared a large town, the inhabitants of which sent a guide to direct them. For five days they followed the guide. and then they saw before them Mount Theches. The tired and sorely tried warriors climbed painfully to its summit, and there in the distance lay before their gaze the blue waters of the Euxine Sea, which we now call the Black Sea.

The pent-up emotion of the long march burst forth, and the men, crying "The sea! The sea!" threw themselves into one another's arms. Then, with a sudden impulse, they set themselves to gather stones; and where they first gazed upon the sea they raised a mighty monument. The remnant of the ten thousand had forced their way to safety!

Even now their troubles were not ended. They had reached the sea, but transports could not be found for all of them, and the fearful prospect of being compelled to march along the shores of the Black Sea made them discontented and almost mutinous. The sick men and those men over forty years of age were taken on ships, while the rest of the army marched to the nearest port.

Here a review was held, and it was found that about six thousand men still survived. About three thousand men had been lost at Cunaxa and nearly four thousand on the grim march. This number was small indeed when the terrible forced marches they had undergone and the dread regions they had passed through are considered.

Their fame spread from one Greek city to another. Their exploit left a wonderful impression on the Greek world, but, although their monument of stones at Mount Theches has long been levelled to the dust, the memory of the gallant and laborious march lives wherever bravery and courage are honoured.

THE MAGIC BOX

LONG, long ago, when this old world was in its tender infancy, there was a child, named Epimetheus, who never had either father or mother; and, that he might not be lonely, another child was sent from a far country to live with him. Her name was Pandora.

The first thing that Pandora saw, when she entered the cottage where Epimetheus dwelt, was a great box. And almost the first question which she put to him, after crossing the threshold, was this, —

" Epimetheus, what have you in that box? "

" My dear little Pandora," answered Epimetheus, " that is a secret. The box was left here to be kept safely, and I do not myself know what it contains."

" But who gave it to you? " asked Pandora. " And where did it come from? "

" It was left at the door," replied Epimetheus, " just before you came, by a person who looked very smiling and intelligent, and who could hardly forbear laughing as he put it down."

" I know him," said Pandora, thoughtfully. " It was Quicksilver; and he brought me hither, as well as the box. No doubt he intended it for me; and, most probably, it contains pretty dresses for me to wear, or toys for you and me to play with, or something very nice for us both to eat! "

" Perhaps so," answered Epimetheus, turning away. " But until Quicksilver comes back and tells us so, we have neither of us any right to lift the lid of the box."

" What a dull boy he is! " muttered Pandora, as Epimetheus left the cottage. " I do wish he had a little more enterprise."

After Epimetheus was gone, Pandora stood gazing at the box.

Its edges and corners were carved with most wonderful skill. Around the margin there were figures of graceful men and women, and the prettiest children ever seen. . . . The most beautiful face of all was done in what is called high relief, in the centre of the lid. There was nothing else, save the dark, smooth richness of the polished wood, and this one face in the centre, with a garland of flowers about its brow. . . .

The box, I had almost forgotten to say, was fastened; not by a lock, nor by any other such contrivance, but by a very intricate knot of gold cord. Never was a knot so cunningly twisted, nor with so many ins and outs, which roguishly defied the skilfullest fingers to disentangle them. And yet, by the very difficulty that there was in it, Pandora was the more tempted to examine the knot, and just see how it was made.

" I really believe," said she to herself, " that I begin to see how it was done. Nay, perhaps I could tie it up again, after undoing it. There would be no harm in that, surely."

First, however, she tried to lift it. She raised one end of the box a few inches from the floor, and let it fall again with a pretty loud thump. A moment afterwards, she almost fancied that she heard something stir inside of the box. She applied her ear as closely as possible and listened. Positively, there did seem to be a kind of stifled murmur within! . . .

As she drew back her head, her eyes fell upon the knot of gold cord.

" It must have been a very ingenious person who tied this knot," said Pandora to herself. " But I think I could untie it nevertheless."

Meanwhile, the bright sunshine came through the open window. Pandora stopped to listen. . . . But just then, by the merest accident, she gave the knot a kind of a twist. The gold cord untwined itself, as if by magic, and left the box without a fastening.

" This is the strangest thing I ever knew! " said Pandora. " What will Epimetheus say. And how can I possibly tie it up again? "

She made one or two attempts to restore the knot, but soon found it quite beyond her skill. . . . Nothing was to be done, therefore, but to let the box remain as it was until Epimetheus should come in.

And then the thought came into her naughty little heart, that, since she would be suspected of having looked in the box, she might just as well do so at once. . . . She could not tell whether it was fancy or no; but there was quite a little tumult of whispers in her ear, —

" Let us out, dear Pandora, — pray let us out! We will be such nice pretty playfellows for you! Only let us out! "

" What can it be? " thought Pandora. " Is there something alive in the box? Well! — yes! — I am resolved to take just one peep! Only one peep; and then the lid shall be shut down as safely as ever! "

But it is now time for us to see what Epimetheus was doing.

This was the first time, since his little playmate had come to dwell with him, that he had attempted to enjoy any pleasure in which she did not partake. But nothing went right; nor was he nearly so happy as on other days. . . .

At length, discovering that, somehow or other, he put a stop to all the play, Epimetheus judged it best to go back to Pandora.

At the moment of his entering the cottage, the naughty child had put her hand to the lid, and was on the point of opening the mysterious box. Epimetheus beheld her. If he had cried out, Pandora would probably have withdrawn her hand, and the fatal mystery of the box might never have been known. . . .

As Pandora raised the lid, the cottage grew very dark and dismal; for a black cloud had now swept quite over the sun, and seemed to have buried it alive. There had, for a little while past, been a low growling and muttering, which all at once broke into a heavy peal of thunder. . . . But Pandora, heeding nothing of all this, lifted the lid nearly upright, and looked inside. It seemed as if a sudden swarm of winged creatures brushed past her, taking flight out of the box, while, at the same instant, she heard the voice of Epimetheus, with a lamentable tone, as if he were in pain.

" Oh, I am stung! " cried he. " I am stung! Naughty Pandora! why have you opened this wicked box? "

Pandora let fall the lid, and, starting up, looked about her, to see what had befallen Epimetheus. The thundercloud had so darkened the room that she could not very clearly discern what was in it. But she heard a disagreeable buzzing, as if a great many huge flies, or gigantic mosquitoes. And, as her eyes grew more accustomed to the imperfect light, she saw a crowd of ugly little shapes, with bats' wings, looking abominably spiteful, and armed with terribly long stings in their tails. It was one of these that had stung Epimetheus. Nor was it a great while before Pandora, herself, began to scream, in no less pain and affright than her playfellow, and making a vast deal more hubbub about it. An odious little monster had settled on her forehead, and would have stung her I know not how deeply, if Epimetheus had not run and brushed it away.

Now, if you wish to know what these ugly things might be, which had made their escape out of the box, I must tell you that they were the whole family of earthly Troubles. There were evil Passions; there were a great many species of Cares; there were more than a hundred and fifty Sorrows; there were Diseases, in a vast number of miserable and painful shapes; there were more kinds of Naughtiness than it would be of any use to talk about. . . .

Meanwhile, both Pandora and Epimetheus had been grievously stung, and were in a good deal of pain, which seemed the more intolerable to them, because it was the very first pain that had ever been felt since the world began. Besides all this, they were in exceedingly bad humour, both with themselves and with one another. In order to indulge it to the utmost, Epimetheus sat down sullenly in a corner with his back towards Pandora; while Pandora flung herself upon the floor and rested her head upon the fatal and abominable box. She was crying bitterly, and sobbing as if her heart would break.

Suddenly there was a gentle little tap on the inside of the lid.

" What can that be? " cried Pandora, lifting her head.

But either Epimetheus had not heard the tap, or was too much out of humour to notice it. At any rate, he made no answer.

" You are very unkind," said Pandora, sobbing anew, " not to speak to me! "

Again the tap! It sounded like the tiny knuckles of a fairy's hand, knocking lightly and playfully on the inside of the box.

" Who are you? " asked Pandora, with a little of her former curiosity. " Who are you, inside of this naughty box? "

A sweet little voice spoke from within, —

" Only lift the lid, and you shall see."

" No, no," answered Pandora, again beginning to sob, " I have had enough of lifting the lid! You are inside of the box, naughty creature, and there you shall stay! . . .

She looked towards Epimetheus, as she spoke, perhaps expecting that he would commend her for her wisdom. But the sullen boy only muttered that she was wise a little too late.

" Ah," said the sweet little voice again, " you had much better let me out. I am not like those naughty creatures that have stings in their tails. . . . Come, come, my pretty Pandora! I am sure you will let me out! "

And, indeed, there was a kind of cheerful witchery in the tone, that made it almost impossible to refuse anything which this little voice asked. Pandora's heart had insensibly grown lighter, at every word that came from within the box. Epimetheus, too, though still in the corner, had turned half round, and seemed to be in rather better spirits than before.

" My dear Epimetheus," cried Pandora, " have you heard this little voice? "

" Yes, to be sure I have," answered he, but in no very good humour as yet. " And what of it? "

" Shall I lift the lid again? " asked Pandora.

" Just as you please," said Epimetheus. " You have done so much mischief already, that perhaps you may as well do a little more. . . ."

" You might speak a little more kindly! " murmured Pandora, wiping her eyes.

" Ah, naughty boy! " cried the little voice within the box, in an arch and laughing tone. " He knows he is longing to see me. Come, my dear Pandora, lift up the lid. I am in a great hurry to comfort you." . . .

" Epimetheus," exclaimed Pandora, " come what may, I am resolved to open the box! "

" And as the lid seems very heavy," cried Epimetheus, running across the room, " I will help you! "

So, with one consent, the two children again lifted the lid. Out flew a sunny and smiling little personage, and hovered about the room, throwing a light wherever she went. . . . She flew to Epimetheus, and laid the least touch of her finger on the inflamed spot where the Trouble had stung him, and immediately the anguish of it was gone. Then she kissed Pandora on the forehead, and her hurt was cured likewise. . . .

" Pray, who are you, beautiful creature? " inquired Pandora.

" I am to be called Hope! " answered the sunshiny figure.

" Your wings are coloured like the rainbow! " exclaimed Pandora. " How very beautiful! "

" Yes, they are like the rainbow," said Hope, " because, glad as my nature is, I am partly made of tears as well as smiles."

" And you will stay with us," asked Epimetheus, " for ever and ever? "

" As long as you need me," said Hope, with her pleasant smile, — " and that will be as long as you live in the world, — I promise never to desert you. . . . Yes, my dear children, and I know something very good and beautiful that is to be given you hereafter! "

" Oh tell us," they exclaimed, — " Tell us what it is! "

" Do not ask me," replied Hope, putting her finger on her rosy mouth. " But do not despair, even if it should never happen while you live on this earth. Trust in the promise, for it is true."

" We do trust you! " cried Epimetheus and Pandora, both in one breath.

And so they did; and not only they, but so has everybody trusted Hope, that has since been alive.

CHILD ROLAND TO THE DARK TOWER CAME

ONLY a few wise old peasant women still remember the story of "Child Roland," and relate it to their children by the winter fire; but it seems to have been one of the favourite fairy tales of Shakespeare, and in "King Lear" he brings in a line from an ancient ballad,

> Child Roland to the dark tower came,

which none of the learned editors of his plays was able to explain. For the ancient ballad is now forgotten.

Child Roland, they say, was one of the sons of King Arthur; he had two elder brothers, and a young and beautiful sister, Lady Ellen. One day they were all playing at ball in merry Carlisle, and Child Roland gave the ball such a powerful kick that he sent it right over the church.

Lady Ellen went to get it, and did not come back. Her brothers looked for her up and down Carlisle, but they could not find her; and at last the elder brother went to the famous wizard, Merlin, and asked him if he knew where his sister was.

"Fair Lady Ellen," said Merlin, "has been carried away by the fairies. She is now in the castle of the King of Elfland. There is not a knight in Christendom that could set her free."

The two elder brothers, however, bravely resolved to attempt to rescue their sister, and, after receiving much wise advice from Merlin, they set out on their perilous enterprise, but did not return.

Child Roland then went to Merlin's cave, and begged for help and counsel, for he, too, was determined to risk his life in seeking for his beautiful sister. The good wizard showed him how to get to the Land of Faerie, and added: "And when you get into the Land of Faerie, there is one thing you must not do. You must not touch food or drink. Upon this everything depends."

ON REACHING THE GREEN HILL, CHILD ROLAND FOLLOWED THE DIRECTIONS OF THE HENWIFE

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On coming to the Land of Faerie, Child Roland saw a fairy herdsman and said to him:

"Can you tell me where is the castle of the King of Elfland?"

"I cannot," replied the fairy herdsman. "But you will find a shepherd farther on, and perhaps he will know where the castle is situated."

Coming up to the shepherd, Child Roland asked him the same question, and was told to go to the henwife in the valley.

"Ride on," said the fairy henwife, when he came to her, "till you arrive at a green hill, encircled from top to bottom with terraces. Three times must you go withershins round it, saying: "Open, door, and let me in! The door will then open."

What troubled Child Roland was the word "withershins," but on reaching the green hill he remembered that it was a magical movement. In order to go withershins, as the witches do, you must go from west to east, instead of from east to west, as the sun and the moon and the stars go.

Child Roland followed the directions that were given by the fairy henwife, and a door opened in the green hill, and closed behind him as he ran up a long passage leading to the palace of the King of Elfland.

He came to an immense hall upheld by pillars of gold and silver, and arches of diamonds. Hanging on a golden chain from the middle of the roof was a large, hollow, transparent pearl, and in the pearl was a magic carbuncle which lighted up the hall with a beautiful radiance. Rubies and emeralds flashed and flamed everywhere, and at the end of the hall Lady Ellen was sitting under a canopy, combing her golden hair with a silver comb.

"Go back, Roland!" she cried. "Go back! If you had a hundred thousand lives, you could not win me back from the wicked King of Elfland."

Then, seeing that he was tired and hungry, she gave him a golden bowl full of delicious fairy milk and tempting fairy bread.

But as Child Roland raised the bowl to his lips, he remembered that if he tasted fairy food he would never see the light of the sun again.

"I will neither eat nor drink!" he exclaimed, flinging the bowl on the floor, "until I succeed in setting you free!"

With the sound of thunder the King of Elfland burst into the hall, and looked around him furiously.

"If I cannot take you alive, I will have you dead!" he roared.

Child Roland drew his father's magic sword, Excalibur, and rushed upon the king. They fought savagely and desperately for a long time, and at length, after a furious battle, Roland struck the king to the ground.

"Spare me!" cried the King of Elfland, "and I will not only set your sister free, but let your brothers depart also, and no harm shall befall them."

To this Child Roland joyfully agreed, and he returned in triumph to Carlisle with his two brothers and Lady Ellen.

THE PRINCESS'S WEDDING FEAST

"WHAT is the sweetest thing in the world?" said a father one day to his two daughters.

"Sugar," said the older girl.

"Salt," said his younger and prettier daughter.

Her father thought she was mocking him, but she held to her opinion, and a quarrel broke out between them over this trifling matter, and he at last pushed her out of the house, saying:

"As you hold that salt is sweeter than sugar, you had better find another home where the cooking is more to your taste!"

It was a beautiful summer night, and as the pretty maiden sat singing merrily in the forest around her father's cottage, a young prince, who had lost himself while hunting the deer, heard her voice, and came to ask her the way. Then, struck by her beauty and gaiety, he fell in love with her, and took her home to his beautiful palace, and married her.

The bride invited her father to the wedding banquet, without telling him that she was his daughter. All the dishes were prepared without salt, and the guests became very dissatisfied and began to murmur as they ate the tasteless food.

"There is no salt in the meat!" they shouted.

"Ah," said the bride's father, "salt is truly the sweetest thing in the world! But when my daughter said so I turned her out of my house. Oh, if I could only see her again, and tell her how sorry I am!"

Drawing the bridal veil from her face, the happy girl went up to her father and kissed him. And properly salted dishes of fish, flesh, and fowl were then brought in, and the marriage feast became quite joyful, and all the guests were very happy and satisfied.

THE NEXT STORIES ARE ON PAGE 5157

WHAT THIS STORY TELLS US

We have already told you in another place about Peter Pan, the boy who wouldn't grow up. Now we come to another play which will also be popular among boys and girls as well as their elders for a long time. This is the Blue Bird, by the famous Belgian writer, Maurice Maeterlinck. In it he tells the story of the search for happiness. The two children go over the world seeking the blue bird, which we find stands for happiness. They find many birds which seem blue in certain lights, but when closely examined are seen to be of some other colour. Finally after enduring many dangers and becoming weary with the search, they return home and find the blue bird there, where it has been all the time. Their eyes were not keen enough to see it until after they had searched far and wide and had tested the friendship of all their companions.

THE BLUE BIRD

One Christmas Eve a little boy and girl, named Tyltyl and Mytyl, were sound asleep in their little cots. Their mother had just crept in to tuck them up in bed, and, turning down the lamp, had tiptoed out again. Suddenly the children opened their eyes and sat up in bed with a strange feeling that something was about to happen. The light in the lamp flickered faintly, and soft yellow glow poured through the closed shutters of the windows.

"Mytyl, are you asleep?" whispered Tyltyl.

"No, are you?" returned Mytyl.

"No!" retorted Tyltyl with boyish scorn. "How can I be asleep when I'm talking to you?"

For a few moments they whispered together. Then Tyltyl said abruptly: "I have an idea!"

"What?" asked Mytyl, eagerly.

"See the light coming through the shutters. The rich children opposite are having a party. Let's get up and look."

"But we mustn't," said Mytyl, taken aback at her big brother's daring.

"Why not?" returned Tyltyl, with a magnificent scorn for consequences.

Hand in hand, they ran across the room in their bare feet, and pushing back the shutters, looked eagerly out. Sure enough, through the windows of the big house across the street, they could see a big Christmas tree laden with presents and children in beautiful frocks dancing about. Suddenly, as Tyltyl and Mytyl knelt on the stool by the window, pressing their noses against the cold pane, a loud knock sounded upon their door.

"What's that?" exclaimed Tyltyl, startled.

As he spoke, the door slowly opened and a little old woman stepped into the room. She was dressed all in green with a big red hood, and she leaned heavily upon a big ebony stick.

"I am the Fairy Berylune," said the little old woman. "Have you here the bird that is blue or the grass that sings? I need the blue bird for my little girl, who is very ill.

There was a moment's silence.

"Tyltyl has a bird," ventured Mytyl timidly.

"Where is the bird?" asked the Fairy.

"Over there in the cage," said Tyltyl.

The Fairy hobbled over to the cage and looked at the bird with her sharp little eyes.

"I don't want it," she said shortly. "It is not blue enough. You will have to go and find for me the one I want. Get dressed at once, for you'll have to start right away.

"But —" objected Tyltyl, "we have no shoes."

"That doesn't matter," said the Fairy, "I will give you a magic hat with a diamond in front to help you in your search for the Blue Bird. It will give you the power to see things as they really are. Turn the diamond to one side and you will see the past. Turn it to the other, and you will see the future."

As she spoke the Fairy pushed a little green hat firmly down upon Tyltyl's head.

"Now turn the diamond," she commanded.

As Tyltyl turned it a wonderful change came over everything in the room. The old Fairy became a princess of marvellous beauty. The cottage walls suddenly became blue and transparent as sapphire, and gleamed and sparkled like precious stones. The souls of the loaves in the oven, in the form of little men in crust-coloured garments, whisked out of the Bread. The Dog and the Cat, lying quietly by the hearth, woke up and began to talk. The soul of Water, streaming and tearful, came pouring out of the tap. The spirit of the flames sprang hissing from the Fire. The soul of Sugar suddenly appeared as a funny man, in a long white and blue coat, with a very sweet smile. The Milk jug upset from the table with a crash and a bashful, white figure arose dripping from the floor. The lamp, too, fell over with a bang, and from the Light sprang up a maiden of dazzling beauty.

"Oh! Oh!" exclaimed Tyltyl and Mytyl.

"Don't be afraid," said the Fairy. "Those are only the souls of things, which most people are too stupid and too blind to see."

Suddenly a knock sounded again at the door.

"That's daddy!" exclaimed Tyltyl, alarmed. "He's heard us."

"Turn the diamond," commanded the Fairy. "Quick! from left to right!"

Tyltyl switched the cap from one side to the other, and the Fairy returned to an old woman once more; but he had turned the hat too quickly, and the souls of Fire, and Water, and Sugar, and Milk, and Bread, and Light, and the Dog and Cat did not have time to resume their natural shapes. A loud knocking was again heard at the door.

"Come! Let us go out of the window," said the Fairy, as if going out of windows were the most natural thing in the world. "You shall all come to my house. You Bread, take the cage in which to put the Blue Bird! Quick! Quick! Let's waste no time!"

And before they knew it, she had whisked them all out of the window and had carried them to her palace. Here she gave Tyltyl and Mytyl and Bread and Sugar and the others beautiful new clothes to put on. Then she escorted the children to the threshold of the Land of Memory.

"You are going to visit your grandmother and grandfather," the Fairy told them. "You may find the Blue Bird there. You must go alone, but we will all meet you when you come back."

Then she left them. For a while the children walked on and on. Presently they could not see their way any longer, for a thick fog hung over all the land. At last they came to a large oak with a sign-board nailed to it, and on the board were these words: "The Land of Memory." Suddenly Mytyl began to cry.

"Where are grandad and granny?" she sobbed.

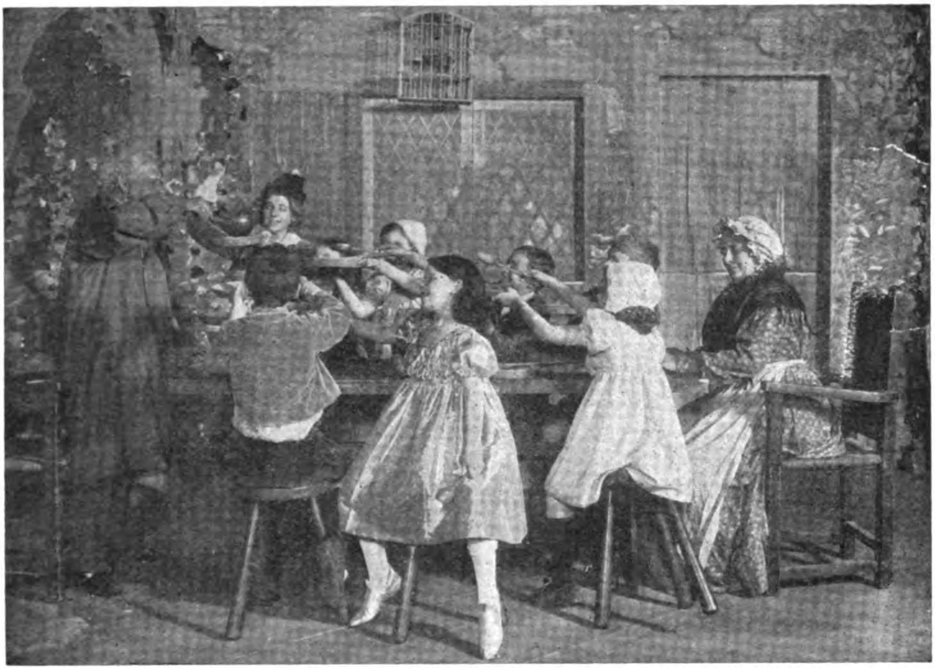
"Behind the fog," returned Tyltyl bravely. "Come, don't cry. Look, the fog is lifting already, and we shall see what's behind it."

As Tyltyl spoke, the mist began to dissolve. It grew thinner and thinner, until they saw before them in the woods a peasant's little cottage, nestling away under the trees. A bird cage with a blackbird sleeping in it, his head folded under his wing, hung in the open window. A row of beehives stood near the cottage, but not a bee could be heard humming in the sunshine. Everything seemed asleep. Beside the cottage door on a bench sat an old man and an old woman, and their heads nodded up and down as they dozed.

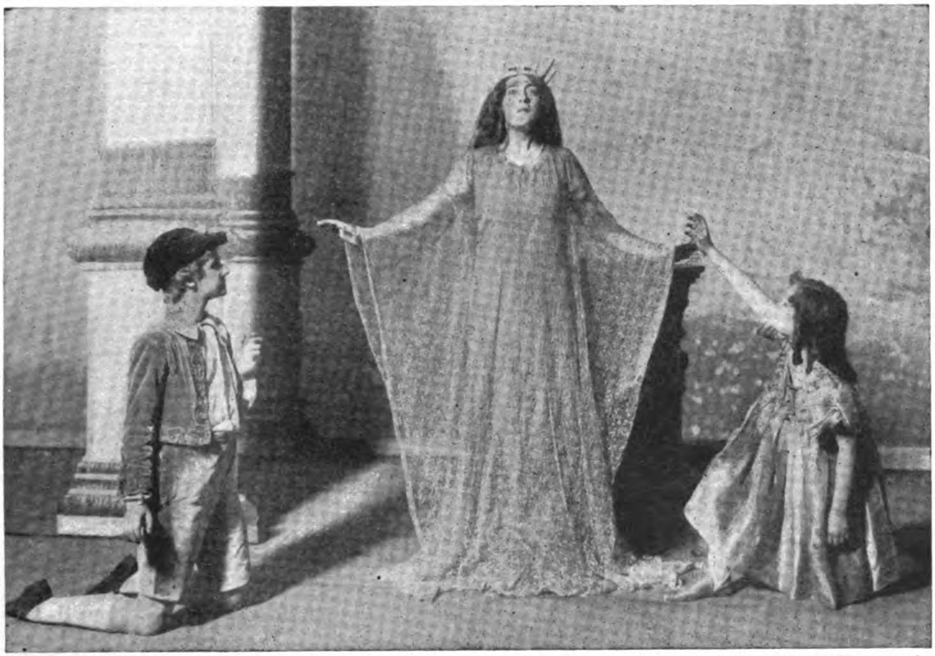
"It's grandad and granny!" exclaimed Tyltyl wonderingly.

"Yes! Yes!" cried little Mytyl

HUNTING FOR HAPPINESS



Here we see Tyltyl and Mytyl taking supper at their grandparents' home in the Land of Memory. Around the table are gathered all their little brothers and sisters who have died, and the blackbird hangs over the window. The bird seems blue to Tyltyl, so the children carry it back to Light, only to find, to their bitter disappointment, that it has turned black again.



Everywhere the children have looked for the Blue Bird for Happiness and have not found him. Now at the end of their search, they are saying farewell to Light, who has guided them so faithfully on their journeys. She is telling them that they will be able to see her always — in the morning sunshine, in the rays that float in through the window, in the soft glow of the evening lamp.

clapping her hands with delight. "So it is! So it is!"

Presently they saw their grandmother slowly open her eyes, stretch herself and look at Grandfather Tyl, who was also waking up.

"I have a notion that our grandchildren are coming to see us to-day," Tyltyl and Mytyl heard her say.

The children rushed out from behind the trees.

"Here we are! Grandad! Granny!" they shouted, jumping up and down. "Here we are!"

For a few moments their grandfather and grandmother were so happy to see them that all they could do was to hug and kiss them delightedly.

"Why don't you come oftener to see us?" they asked. "It's months and months now that you've forgotten us, and that we have seen nobody."

"We couldn't," Tyltyl explained. "And to-day, it's only because of the Fairy."

"The last time you came," said Granny, "was on All-hallows' Eve, when the church bells were ringing."

"But —" exclaimed Tyltyl, much astonished, "we didn't go out that day!"

"No, but you thought of us," answered their grandmother, "and every time you think of us we wake up and see you again."

Presently Mytyl noticed the sleeping bird, and exclaimed, "Why; here is our old blackbird! Does he still sing, Granny?"

As she spoke the bird woke up and began to sing.

"You see," said Granny triumphantly, "as soon as one thinks of him —"

"But the bird's blue, not black!" interrupted Tyltyl, in amazement. "He's blue as a blue glass marble. Grandad! Granny! May I have him to take back to the Fairy?"

"Certainly," said they, so Tyltyl put him in his cage, and after supper with their grandparents, the children said good-bye.

"Don't cry, Granny dear," said Tyltyl, "we will come back as often as we can."

"Come back every day," said their grandmother wistfully. "It's our only pleasure to have your thoughts visit us."

"Yes, come often," added their grandfather. "We have no other amusements."

So with their precious cage tucked under Tyltyl's arm, they set out, waving their handkerchiefs now and then to their dear old grandad and granny. As they walked, the fog closed in about them and hid the cottage from their sight. But a great disappointment awaited them, for when they reached the palace of the Fairy, they found that the bird in the cage was no longer blue. He had turned black.

Once more they set out in search for the Blue Bird, and this time the Fairy sent them to the Palace of Night, accompanied by Bread, Sugar and the Dog. They wandered on until they came to a wonderful hall lined with gold and ebony and shining black marble. On a great throne in the middle of the hall sat a woman clad in long, trailing, black robes, and in front of the throne sat the Cat. Now the Cat was anxious to prevent the children from finding the Blue Bird, and he had hurried ahead to warn Night that the children were coming. But the Cat was a great hypocrite, and as soon as he saw the children he rushed up to them in pretended delight.

"This way, little master, this way," he purred. "I have told Night you were coming, and she is delighted to see you."

Tyltyl explained his errand to the sombre figure on the throne.

"I have come to look for the Blue Bird," he said; "may I have the keys of your doors?"

"Have you the sign?" asked Night, grudgingly.

Tyltyl touched his hat.

"Behold the Diamond," he said.

Night scowled blackly, but delivered the keys into his hands.

"Look to yourself if you meet with misfortune," said she.

One door after another, around the great black hall, Tyltyl unlocked. In one he found the Ghosts, in another the Wars, in another the Shades and Terrors, and in another the Perfumes of the Night, in still another the Will-o'-the Wisps and the Fireflies and the Stars. Behind one door he found the Sicknesses, and a little Cold-in-the-Head came hopping out, sneezing, coughing and blowing its nose, but in none could he find the Blue Bird. At last he turned to the great door behind the throne of Night. With warning, outstretched hands she blocked his path.

"Do not open that one," said Night, terribly. "If you do you will surely be lost."

Whereupon Mytyl, who had been frightened by all the strange things she had seen, began to cry, and Bread flung himself on his knees before Tyltyl.

"Don't do it, master dear," he besought him with chattering teeth.

"You will sacrifice the lives of all of us," the Cat remarked sententiously.

"I must open the door," answered Tyltyl, rather frightened, but gathering his courage together. "Sugar and Bread take Mytyl by the hand and run away with her."

So the others fled away as fast as they could, only Tylo, the Dog, half dead with fear, remaining faithfully by his master's side, muttering, "I shall stay, I shall stay! I am not afraid! I shall stay with my little god!"

With trembling fingers Tyltyl inserted the key in the great doors. At the first touch they slid softly aside. Tyltyl stood staring in utter bewilderment, for instead of the fearful cavern he had expected, a beautiful garden lay before him, shimmering in the moonshine, and in every moonbeam a fairy Blue Bird hovered.

"Mytyl, Tylo!" shouted Tyltyl, half wild with excitement. "Come all. Help me! Thousands of Blue Birds. Millions! You can catch them by the handfuls."

The children rushed into the dazzling garden and came forth, their arms full of struggling Blue Birds, and hurried away as fast as they could to find the Fairy and tell her the good news. The Cat remained behind.

"Have they got the real Blue Bird?" questioned Night fearfully.

"No . . . I see him there, on that moonbeam," exulted the Cat. "They could not reach him! He kept too high."

In the meanwhile the children had met the spirit of Light.

"Have you caught the Blue Bird?" asked Light.

"Yes, yes," exclaimed Tyltyl, eagerly. "As many as we want! Here they are!"

But, as he held out the birds, he suddenly saw that they were dangling limp and lifeless in his hands. He had only caught the moonbeam Blue Birds. The real one had escaped.

Still the children wandered on and on until they received a note from Fairy Berylune telling them to look for the Blue Bird of Happiness at midnight in the Churchyard, so one night when the moon was shining brightly on the grassy mounds and the wooden crosses on the graves, Tyltyl and Mytyl crept into the churchyard. Mytyl was frightened.

"I want to go way," she pleaded.

"Not now, little sister," said Tyltyl, mustering his failing courage. "I am going to turn the diamond and we'll see the souls of the dead."

"No! No! — Don't," gasped Mytyl. "I am so frightened, brother!"

"There's no danger," Tyltyl reassured her.

"I — I don't want to see the dead," persisted Mytyl. "I don't want to see them."

"Very well, you sha'n't see them. Shut your eyes," returned Tyltyl, and he put up his hand to turn his cap. For a moment he too felt like closing his eyes. There was a pause of terrifying silence. Then, slowly, the crosses began to totter, the mounds opened.

"They're coming out," gasped Mytyl, cowering against Tyltyl.

Slowly, slowly, the slabs rose up, — a tiny mist came from the ground. Then little by little, green shoots pushed their heads through the sod, and a pure white lily unfolded itself on every grave. Mytyl opened her eyes and stared with dazzled eyes at the fairy-like luminous field.

"Where — where are the dead?" she whispered, trembling.

"There are no dead," exclaimed Tyltyl, awestruck.

But the Blue Bird was not in the Churchyard. The children next sought him in the Kingdom of the Future. On and on they went until they came to the blue Halls of the Azure Palace, where they found the children who were waiting to be born, hundreds of thousands of them — all dressed in long blue, mist-like garments. Some were playing, others strolling to and fro, others talking or dreaming; many were asleep; many were working at future inventions; and everything about was blue, blue as the summer sky.

"Where are we?" asked Tyltyl.

"In the Kingdom of the Future," Light told them. "We shall probably find the Blue Bird here."

As Light spoke a crowd of little Blue Children began to gather about, their fingers in their mouths, their eyes wide as saucers.

"Live children! Come look at the little live children," they cried.

They brought all their inventions for the children to see.

"Look at my daisies," cried one, bending under the weight of a flower as big as a cartwheel. "They will grow like that when I am on earth."

"See my pears!" said another. "They will all be like that when I am thirty!"

One little child ran up and began to kiss Tyltyl and Mytyl.

"I shall be your brother," the child said. "I am coming to you next Palm Sunday."

"What have you got in that bag?" asked Tyltyl curiously.

"I bring three illnesses," the child replied. "Whooping cough, scarlatina, measles."

"And after that?" queried Tyltyl.

"After that . . . I shall leave you."

"But it will hardly be worth while coming," exclaimed Tyltyl.

"We can't pick and choose," the little unborn soul replied.

Suddenly a loud swelling sound was heard through the Azure Hall. Two great opal doors on one side began to move.

"What is that?" asked Tyltyl.

"That's Time," replied the Child.

The great opal doors turned slowly on their hinges, and old Father Time appeared on the threshold. Behind him could be seen a boat, sails set ready for the sailing.

"Are they ready, whose hour has struck?" he called gruffly.

The Blue Children came hurrying, crowding from every side.

"Here we are! Here we are!" they shrilled.

"One at a time," said Father Time, as he hurried those who were to be born into the boat.

As the boat set sail, the little Blue souls called out their farewells to the children who were going to be born.

"Good-bye, Pierre! Good-bye, Jean. . . . Try to know me again. . . . I shall find you. . . . Don't lose your ideas. . . . Don't lean too far into space."

Then the children's voices in the boat were heard faintly in the distance: "The Earth! The Earth! How beautiful it is!" Then a strange, wonderful swelling sound of gladness arose.

"What is that?" whispered Tyltyl.

"It is the song of the mothers coming out to meet them," said Light.

Meanwhile Time had come back to close the opal doors. Suddenly he caught sight of the children, and he advanced upon them furiously.

"Who are you?" he demanded fiercely. "How did you get in?"

"Do not answer," whispered Light, and catching the children by the hands, she fled away before him.

And thus it came to pass that the children could not find the Blue Bird of Happiness. Everywhere they looked for him, but nowhere could he be found. At last one day they woke up to find themselves back in their own little beds at home in the cottage, and there in their own home they found the Blue Bird of Happiness they had sought everywhere else in vain.

And so it is with most of us — we are searching for happiness everywhere, in all the out-of-the-way places, when, if we did but know it, it is waiting for us in all the simple joys and duties of our homes.

CONTINUED ON PAGE 5157.

WHAT THIS EXTRACT TELLS US

WILLIAM HICKLING PRESCOTT, the famous historian, was born in 1796, and died in 1859. While a student in Harvard College, the sight of one eye was destroyed, by a crust of hard bread, carelessly thrown by another student. The double work thrown on the other eye, affected the sight of it also, and for many years he could read only an hour a day. He became interested in the history of Spain and employed men to read aloud the old manuscripts of the explorers, and the accounts of their voyages and conquests. His memory grew so strong that it is said that he could remember everything read to him. When he was ready, he would then dictate several chapters without stopping. He thus produced four great works. This extract is taken from his Conquest of Mexico, and describes the meeting of Cortez and Montezuma. We know now that there are many errors in the work, but it is still one of the most interesting and valuable histories of the early actions of the white men in North America.

CORTEZ ENTERING THE CITY OF MEXICO

CONTINUED FROM 4992

WITH the first faint streak of dawn, the Spanish general was up, mustering his followers. They gathered, with beating hearts, under their respective banners, as the trumpet sent forth its spirit-stirring sounds across the water and woodland, till they died away in the distant echoes among the mountains. The sacred flames on the altars of numberless *teocallis*, dimly seen through the gray mists of morning, indicated the site of the capital, till temple, tower, and palace were fully revealed in the glorious illumination which the sun, as he rose above the eastern barrier, poured over the beautiful valley. It was the eighth of November, 1519, a conspicuous day in history, as that on which the Europeans first set foot in the capital of the Western World.

Cortez with his little body of horse formed a sort of advanced guard to the army. Then came the Spanish infantry, who in a summer's campaign had acquired the discipline and the weather-beaten aspect of veterans. The baggage occupied the centre, and the rear was closed by the dark files of Tlascalan warriors. The whole number must have fallen short of seven thousand, of which less than four thousand were Spaniards.

MECHANICAL SKILL OF THE AZTECS

For a short distance, the army kept along the narrow tongue of land that divides the Tezcucan from the Chalcan waters, when it entered on the great dike, which, with the exception of an angle near the commencement, stretches in a perfectly straight line across the salt floods of Tezcuco to the gate of the capital. It was the same causeway, or rather the basis of that, which still forms the great southern avenue of Mexico. The Spaniards had occasion more than ever to admire the mechanical science of the Aztecs, in the geometrical precision with which the work was executed, as well as the solidity of its construction. It was composed of huge stones well laid in cement, and wide enough, throughout its whole extent, for ten horsemen to ride abreast.

They saw, as they passed along, several large towns, resting on piles, and reaching far into the water, — a kind of architecture which found great favour with the Aztecs, being in imitation of that of their metropolis. The busy population obtained a good subsistence from the manufacture of salt, which they extracted from the waters of the great lake. The duties on the traffic in this article were a considerable source of revenue to the crown.

A THRIVING POPULATION

Everywhere the conquerors beheld the evidence of a crowded and thriving population, exceeding all they had yet seen. The temples and principal buildings of the cities were covered with a hard, white stucco, which glistened like enamel in the level beams of the morning. The margin of the great basin was more thickly gemmed than that of Chalco with towns and hamlets. The water was darkened by swarms of canoes filled with Indians, who clambered up the side of the causeway and gazed with curious astonishment on the strangers. And here, also, they beheld those fairy islands of flowers, overshadowed occasionally by trees of considerable size, rising and falling with the gentle undulation of the billows. At the distance of half a league from the capital, they encountered a solid work or curtain of stone, which traversed the dike. It was twelve feet high, was strengthened by towers at the extremities, and in the centre was a battlemented gateway which opened a passage to the troops. It was called the Fort of Xoloc, and became memorable in after-times as the position occupied by Cortez in the famous siege of Mexico.

THE WELCOME OF MONTEZUMA

Here they were met by several hundred Aztec chiefs, who came out to announce the approach of Montezuma, and to welcome the Spaniards to his capital. They were dressed in the fanciful gala costume of the country, with the *maxtlatl*, or cotton sash, around their loins, and a broad mantle of the same material, or the brilliant feather-embroidery, flowing gracefully down their shoulders. On their necks and arms they displayed collars and bracelets of turquoise mosaic, with which delicate plumage was curiously mingled, while their ears, under lips, and occasionally their noses, were garnished with pendants formed of precious stones, or crescents of fine gold. As each *cacique* made the usual formal salutation of the country separately to the general, the tedious ceremony delayed the march more than an hour. After this, the army experienced no further interruption till it reached a bridge near the gates of the city. It was built of wood, since replaced by one of stone, and was thrown across an opening of the dike, which furnished an outlet to the waters when agitated by the winds or swollen by a sudden influx in the rainy season. It was a draw-bridge, and the Spaniards, as they crossed it, felt how truly they were committing themselves to the mercy of Montezuma, who by thus cutting off their communications with the country, might hold them prisoners in his capital.

In the midst of these unpleasant reflections, they beheld the glittering retinue of the emperor emerging from the great street which led then, as it still does, through the heart of the city. Amidst a crowd of Indian nobles, preceded by three officers of state, bearing golden wands, they saw the royal palanquin blazing with burnished gold. It was borne on the shoulders of nobles, and over it a canopy of gaudy featherwork, powdered with jewels and fringed with silver, was supported by four attendants of the same rank. They were barefooted, and walked with a slow, measured pace, and with eyes bent on the ground. When the train had come within a convenient distance it halted, and Montezuma, descending from his litter, came forward leaning on the arms of the lords of Tezcuco and Iztapalapan, his nephew and brother, both of whom, as we have seen, had already been made known to the Spaniards. As the monarch advanced under the canopy, the obsequious attendants strewed the ground with cotton tapestry, that his imperial feet might not be contaminated by the rude soil. His subjects of high and low degree, who lined the sides of the causeway, bent forward with their eyes fastened on the ground as he passed, and some of the humbler class prostrated themselves before him. Such was the homage paid to the Indian despot, showing that the slavish forms of Oriental adulation were to be found among the rude inhabitants of the Western World.

THE MAGNIFICENCE AND STATE OF THE INDIAN EMPEROR

Montezuma wore the girdle and ample square cloak, *tilmatli*, of his nation. It was made of the finest cotton, with the embroidered ends gathered in a knot around his neck. His feet were defended by sandals having soles of gold, and the leathern thongs which bound them to his ankles were embossed with the same metal. Both the cloak and sandals were sprinkled with pearls and precious stones, among which the emerald and the *chalchivitl* — a green stone of higher estimation than any other among the Aztecs — were conspicuous. On his head he wore no other ornament than a *panache* of plumes of the royal green which floated down his back, the badge of military, rather than of regal, rank.

He was at this time about forty years of age. His person was tall and thin, but not ill-made. His hair, which was black and straight, was not very long; to wear it short was considered unbecoming persons of rank. His beard was thin; his complexion somewhat paler than is often found in his dusky, or rather copper-coloured race. His features, though serious in their expression, did not wear the look of melancholy, indeed, of dejection, which characterises his portrait, and which may well have settled on them at a later period. He moved with dignity, and his whole demeanour, tempered by an expression of benignity not to have been anticipated from the reports circulated of his character, was worthy of a great prince. — Such is the portrait left to us of the celebrated Indian emperor, in this his first interview with the white men.

THE MEETING OF CORTEZ AND MONTEZUMA

The army halted as he drew near. Cortez, dismounting, threw his reins to a page, and supported by a few of the principal cavaliers, advanced to meet him. The interview must have been one of uncommon interest to both. In Montezuma, Cortez beheld the lord of the broad realms he had traversed, whose magnificence and power had been the burden of every tongue. In the Spaniard, on the other hand, the Aztec prince saw the strange being whose history seemed to be so mysteriously connected with his own; the predicted one of his oracles, whose achievements proclaimed him something more than human. But, whatever may have been the monarch's feelings, he so far suppressed them as to receive his guest with princely courtesy, and to express his satisfaction at personally seeing him in his capital. Cortez responded by the most profound expressions of respect, while he made ample acknowledgments for the substantial proofs which the emperor had given the Spaniards of his munificence. He then hung around Montezuma's neck a sparkling chain of coloured crystal, accompanying this with a movement as if to embrace him, when he was restrained by the two Aztec lords, shocked at the menaced profanation of the sacred person of their master. After the interchange of these civilities, Montezuma appointed his brother to conduct the Spaniards to their residence in the capital, and again entering his litter, was borne off amidst prostrate crowds in the same state in which he had come. The Spaniards quickly followed, and with colours flying and music playing soon made their entrance into the southern quarter of Tenochtitlan.

TENOCHTITLAN, THE CAPITAL OF THE AZTECS

Here, again, they found fresh cause for admiration in the grandeur of the city, and the superior style of its architecture. The dwellings of the poorer classes were, indeed, chiefly of reeds and mud. But the great avenue through which they were now marching was lined with the houses of the nobles, who were encouraged by the emperor to make the capital their residence. They were built of a red, porous stone drawn from quarries in the neighbourhood, and though they rarely rose to a second story, often covered a large space of ground. The flat roofs, *azoteas*, were protected by stone parapets, so that every house was a fortress. Sometimes these roofs resembled parterres of flowers, so thickly were they covered with them, but more frequently these were cultivated in broad terraced gardens, laid out between the edifices. Occasionally a great square or market-place intervened, surrounded by its porticoes of stone and stucco; or a pyramidal temple reared its colossal bulk, crowned with its tapering sanctuaries, and altars blazing with inextinguishable fires. The great street facing the southern causeway, unlike most others in the place, was wide, and extended some miles in nearly a straight line, as before noticed, through the centre of the city. A spectator standing at one end of it, as his eye ranged along the deep vista of temples, terraces, and gardens, might clearly discern the other, with the blue mountains in the distance, which, in the transparent atmosphere of the table-land, seemed almost in contact with the buildings.

But what most impressed the Spaniards was the throngs of people who swarmed through the streets and on the canals, filling every doorway and window and clustering on the roofs of the buildings. " I well remember the spectacle," exclaims Bernal Diaz; " it seems now, after so many years, as present to my mind, as if it were but yesterday." But what must have been the sensations of the Aztecs themselves, as they looked on the portentous pageant! as they heard, now for the first time, the well-cemented pavement ring under the iron tramp of the horses, — the strange animals which fear had clothed in such supernatural terrors; as they gazed on the children of the East, revealing their celestial origin in their fair complexions; saw the bright falchions and bonnets of steel, a metal to them unknown, glancing like meteors in the sun, with sounds of unearthly music — at least, such as their rude instruments had never awakened — floated in the air! But every other emotion was lost in that deadly hatred, when they beheld their detested enemy, the Tlascalan, stalking in defiance, as it were, through their streets, and staring around with looks of ferocity and wonder, like some wild animal of the forest, who had strayed by chance from his native fastnesses into the haunts of civilisation.

As they passed down the spacious street, the troops repeatedly traversed bridges suspended above canals, along which they saw the Indian barks gliding swiftly with their little cargoes of fruits and vegetables for the markets of Tenochtitlan. At length, they halted before a broad area near the centre of the city, where rose the huge pyramidal pile dedicated to the patron war-god of the Aztecs, second only, in size, as well as sanctity, to the temple of Cholula, and covering the same ground now in part occupied by the great cathedral of Mexico.

THE SPANIARD QUARTERED IN THE PALACE OF AXAYACATL

Facing the western gate of the enclosure of the temple, stood a low range of stone buildings, spreading over a wide extent of ground, the palace of Axayacatl, Montezuma's father, built by that monarch about fifty years before. It was appropriated as the barracks of the Spaniards. The emperor himself was in the courtyard, waiting to receive them. Approaching Cortez, he took from a vase of flowers, borne by one of his slaves, a massy collar, in which the shell of a species of craw-fish, much prized by the Indians, was set in gold, and connected by heavy links of the same metal. From this chain depended eight ornaments also of gold, made in resemblance of the same shell-fish, a span in length each and of delicate workmanship; for the Aztec goldsmiths were confessed to have shown skill in their craft, not inferior to their brethren of Europe. Montezuma, as he hung the gorgeous collar round the general's neck, said, " This palace belongs to you, Malinche " (the epithet by which he always addressed him), " and your brethren. Rest after your fatigue, for you have much need to do so, and in a little while I will visit you again." So saying, he withdrew with his attendants, evincing, in this act, a delicate consideration not to have been expected in a barbarian.

Cortez' first care was to inspect his new quarters. The building, though spacious, was low, consisting of one floor, except, indeed, in the centre, where it rose to an additional story. The apartments were of great size, and afforded accommodations, according to the testimony of the conquerors themselves, for the whole army. The hardy mountaineers of Tlascala were, probably, not very fastidious, and might easily find a shelter in the outbuildings, or under temporary awnings in the ample courtyards. The best apartments were hung with gay cotton draperies, the floor covered with mats or rushes. There were, also, low stools made of single pieces of wood elaborately carved, and in most of the apartments beds made of the palm-leaf, woven into a thick mat, with coverlets, and sometimes canopies of cotton. These mats were the only beds used by the natives, whether of high or low degree.

After a rapid survey of this gigantic pile, the general assigned his troops their respective quarters, and took as vigilant precautions for security, as if he had anticipated a siege, instead of a friendly entertainment. The place was encompassed by a stone wall of considerable thickness, with towers of heavy buttresses at intervals, affording a good means of defence. He planted his cannon so as to command the approaches, stationed his sentinels along the works, and, in short, enforced in every respect as strict military discipline as had been observed in any part of the march. He well knew the importance to his little band, at least for the present, of conciliating the good-will of the citizens, and, to avoid all possibility of collision, he prohibited any soldier from leaving his quarters without orders, under pain of death. Having taken these precautions, he allowed his men to partake of the bountiful collation which had been prepared for them.

A BOUNTIFUL REPAST

They had been long enough in the country to become reconciled to, if not to relish, the peculiar cooking of the Aztecs. The appetite of the soldier is not often dainty, and on the present occasion it cannot be doubted that the Spaniards did full justice to the savoury productions of the royal kitchen. During the meal they were served by numerous Mexican slaves, who were, indeed, distributed through the palace, anxious to do the bidding of the strangers. After the repast was concluded, and they had taken their *siesta*, the after dinner nap, not less important to a Spaniard than food itself, the presence of the emperor was again announced.

MONTEZUMA VISITS CORTEZ

Montezuma was attended by a few of his principal nobles. He was received with much deference by Cortez; and, after the parties had taken their seats, a conversation commenced between them through the aid of Dona Marina, while the cavaliers and Aztec chieftains stood around in respectful silence.

Montezuma made many inquiries concerning the country of the Spaniards, their sovereign, the nature of his government, and especially their own motives in visiting Anahuac. Cortez explained these motives by the desire to see so distinguished a monarch, and to declare to him the true Faith professed by the Christians. With rare discretion, he contented himself with dropping this hint, for the present, allowing it to ripen in the mind of the emperor, till a future conference. The latter asked, whether those white men who in the preceding year had landed on the eastern shores of his empire were their countrymen. He showed himself well informed of the proceedings of the Spaniards from their arrival in Tabasco to the present time, information of which had been regularly transmitted in the hieroglyphical paintings. He was curious, also, in regard to the rank of his visitors in their own country, inquiring, if they were kinsmen of the sovereign. Cortez replied, they were kinsmen of one another, and subjects of their great monarch, who held them all in peculiar estimation. Before his departure, Montezuma made himself acquainted with the names of the principal cavaliers, and the positions they occupied in the army.

At the conclusion of the interview, the Aztec prince commanded his attendants to bring forward the presents prepared for his guests. They consisted of cotton dresses, enough to supply every man, it is said, including the allies, with a suit! And he did not fail to give all the usual accompaniment of gold chains and other ornaments. He then withdrew with the same ceremony with which he had entered, leaving everyone deeply impressed with his munificence and his affability, so unlike what they had been taught to expect by what they now considered an invention of the enemy.

CELEBRATION OF THE SPANIARDS

That evening, the Spaniards celebrated their arrival in the Mexican capital by a general discharge of artillery. The thunders of the ordnance reverberating among the buildings and shaking them to their foundations, the stench of the sulphurous vapour that rolled in volumes above the walls of the encampment, reminding the inhabitants of the explosions of the great volcano, filled the hearts of the superstitious Aztecs with dismay. It proclaimed to them, that their city held in its bosom those dread beings whose path had been marked with desolation, and who could call down the thunderbolts to consume their enemies! It was doubtless the policy of Cortez to strengthen this superstitious feeling as far as possible, and to impress the natives, at the outset, with a salutary awe of the supernatural powers of the Spaniards.

CORTEZ VISITS MONTEZUMA IN THE ROYAL PALACE

On the following morning, the general requested permission to return the emperor's visit, by waiting on him in his palace. This was readily granted, and Montezuma sent his officers to conduct the Spaniards to his presence. Cortez dressed himself in his richest habit, and left the quarters attended by Alvarado, Sandoval, Velasquez, and Ordaz, together with five or six of the common file.

The royal habitation was at no great distance. It stood on the ground, to the southwest of the Cathedral, since covered in part by the Casa del Estado, the palace of the dukes of Monteleone, the descendants of Cortez. It was a vast, irregular pile of low stone buildings, like that garrisoned by the Spaniards. So spacious was it, indeed, that as one of the conquerors assures us, although he had visited it more than once, for the express purpose, he had been too much fatigued each time by wandering through the apartments ever to see the whole of it. It was built of the red, porous stone of the country, *tetzontli*, was ornamented with marble, and on the façade over the principal entrance were sculptured the arms or device of Montezuma, an eagle bearing an ocelot in his talons.

In the courts through which the Spaniards passed, fountains of crystal water were playing, fed from the copious reservoir on the distant hill of Chapultepec, and supplying in their turn more than a hundred baths in the interior of the palace. Crowds of Aztec nobles were sauntering up and down in these squares, and in the outer halls, loitering away their hours in attendance on the court. The apartments were of immense size, though not lofty. The ceilings were of various sorts of odoriferous wood ingeniously carved; the floors covered with mats of the palm-leaf. The walls were hung with cotton richly stained, with the skins of wild animals, or gorgeous draperies of feather-work wrought in imitation of birds, insects, and flowers, with the nice art and glowing radiance of colours that might compare with the tapestries of Flanders. Clouds of incense rolled up from censors, and diffused intoxicating odours through the apartments. The Spaniards might well have fancied themselves in the voluptuous precincts of an Eastern harem, instead of treading the halls of a wild barbaric chief in the Western World.

On reaching the hall of audience, the Mexican officers took off their sandals, and covered their gay attire with a mantle of *nequen*, a coarse stuff made of the fibres of the maguey, worn only by the poorest classes. This act of humiliation was imposed on all except the members of his own family who approached the sovereign. Thus barefooted, with downcast eyes and formal obeisance, they ushered the Spaniards into the royal presence.

They found Montezuma seated at the further end of a spacious saloon, and surrounded by a few of his favourite chiefs. He received them kindly, and very soon Cortez, without much ceremony, entered on the subject which was uppermost in his thoughts. He was fully aware of the importance of gaining the royal convert, whose example would have such an influence on the conversion of his people. The general, therefore, prepared to display the whole store of his theological science, with the most winning arts of rhetoric he could command, while the interpretation was conveyed through the silver tones of Marina, as inseparable from him, on these occasions, as his shadow.

CORTEZ TRIES TO CONVERT MONTEZUMA TO CHRISTIANITY

He set forth, as clearly as he could, the ideas entertained by the Church in regard to the holy mysteries of the Trinity, the Incarnation, and the Atonement. From this he ascended to the origin of things, the creation of the world, the first pair, paradise, and the fall of man. He assured Montezuma, that the idols he worshipped were Satan under different forms. A sufficient proof of it was the bloody sacrifices they imposed, which he contrasted with the pure and simple rite of mass. Their worship would sink him in perdition. It was to snatch his soul, and the souls of his people, from the flames of eternal fire, by opening to them a purer faith, that the Christians had come to his land. And he earnestly besought him not to neglect the occasion, but to secure his salvation by embracing the Cross, the great sign of human redemption.

The eloquence of the preacher was wasted on the insensible heart of his royal auditor. It, doubtless, lost somewhat of its efficacy, strained through the imperfect interpretation of so recent a neophyte as the Indian damsel. But the doctrines were too abstruse in themselves to be comprehended at a glance by the rude intellect of a barbarian. And Montezuma may have, perhaps, thought it was not more monstrous to feed on the flesh of a fellow-creature, than on that of the Creator himself. He was, besides, steeped in the superstitions of his country from his cradle. He had been educated in the straitest sect of her religion; had been himself a priest before his election to the throne; and was now the head of both religion and the state. Little probability was there that such a man would be open to argument or persuasion, even from the lips of a more practised polemic than the Spanish commander. How could he abjure the faith that was intertwined with the dearest affections of his heart, and the very elements of his being? How could he be false to the gods who had raised him to such prosperity and honours, and whose shrines were entrusted to his especial keeping?

MONTEZUMA REFUSES TO GIVE UP HIS OWN GODS

He listened, however, with silent attention, until the general had concluded his homily. He then replied, that he knew the Spaniards had held this discourse wherever they had been. He doubted not their God was as they said, a good being. His gods, also, were good to him. Yet what his visitor said of the creation of the world was like what he had been taught to believe. It was not worth while to discourse further upon the matter. His ancestors, he said, were not the original proprietors of the land. They had occupied it but a few ages, and had been led there by a great Being, who, after giving them laws and ruling over the nation for a time, had withdrawn to the regions where the sun rises. He had declared, on his departure, that he or his descendants would again visit them and resume his empire. The wonderful deeds of the Spaniards, their fair complexions, and the quarter whence they came, all showed they were his descendants. If Montezuma had resisted their visit to his capital, it was because he had heard such accounts of their cruelties, — that they sent the lightning to consume his people, or crushed them to pieces under the hard feet of the ferocious animals on which they rode. He was now convinced that these were idle tales; that the Spaniards were kind and generous in their natures; they were mortals, of a different race, indeed, from the Aztecs, wiser, more valiant, — and for this he honoured them.

THE GREAT EMPEROR OFFERS TO SHARE HIS KINGDOM

"You too," he added, with a smile, "have been told, perhaps, that I am a god, and dwell in palaces of gold and silver. But you see it is false. My houses, though large, are of stone and wood like those of others; and as to my body," he said, baring his tawny arm, "you see it is flesh and my bone like yours. It is true, I have a great empire inherited from my ancestors; lands, and gold, and silver. But your sovereign beyond the waters is, I know, the rightful lord of all. I rule in his name. You, Malinche, are his ambassador; you and your brethren shall share these things with me. Rest now from your labour. You are here in your own dwellings, and everything shall be provided for your subsistence. I will see that your wishes shall be obeyed in the same way as my own."

Cortez, while he encouraged the idea that his own sovereign was the great Being indicated by Montezuma, endeavoured to comfort the monarch by the assurance that his master had no desire to interfere with his authority otherwise than, out of pure concern for his welfare, to effect his conversion and that of his people to Christianity. Before the emperor dismissed his visitors he consulted his munificent spirit, as usual, by distributing rich stuffs, and trinkets of gold among them, so that the poorest soldiers, says Bernal Diaz, one of the party, received at least two heavy collars of the precious metal for his share. The iron hearts of the Spaniards were touched with the emotion displayed by Montezuma, as well as by his princely spirit of liberality. As they passed him, the cavaliers, with bonnet in hand, made him the most profound obeisance, and " on the way home," continues the same chronicler, " we could discourse of nothing but the gentle breeding and courtesy of the Indian monarch, and of the respect we entertained for him."

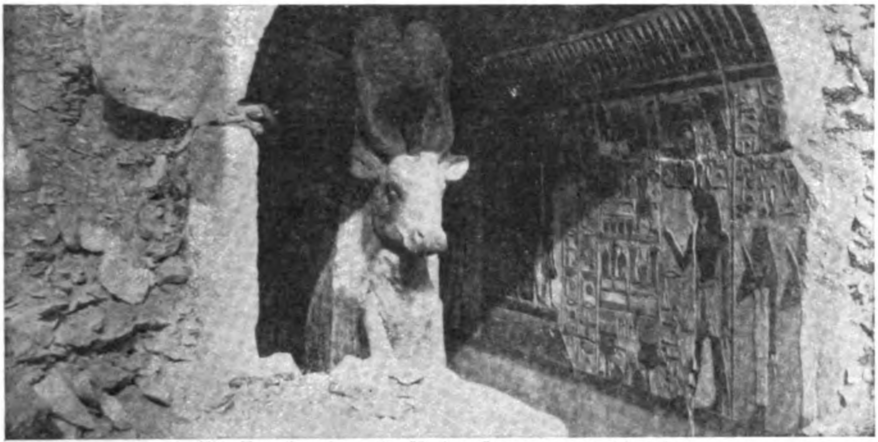
THE REFLECTIONS OF CORTEZ

Speculations of a graver complexion must have pressed on the mind of the general, as he saw around him the evidences of a civilisation, and consequently power, for which even the exaggerated reports of the natives — discredited from their apparent exaggeration — had not prepared him. In the pomp and burdensome ceremonial of the court, he saw that nice system of subordination and profound reverence for the monarch which characterise the semi-civilised empires of Asia. In the appearance of the capital, its massy, yet elegant architecture, its luxurious social accommodations, its activity in trade, he recognised the proofs of the intellectual progress, mechanical skill, and enlarged resources of an old and opulent community.

In the Aztec he beheld a being unlike either the rude republican Tlascalan, or the effeminate Cholulan, but combining the courage of the one with the cultivation of the other. He was in the heart of a great capital, which seemed like an extensive fortification with its dikes and its drawbridges, where every house might be easily converted into a castle. Its insular position removed it from the continent, from which, at the mere nod of the sovereign, all communication might be cut off, and the whole warlike population be at once precipitated on him and his handful of followers. What could superior science avail against such odds?

As to the subversion of Montezuma's empire, now that he had seen him in his capital, it must have seemed a more doubtful enterprise than ever. The recognition which the Aztec prince had made of the feudal supremacy, if I may so say, of the Spanish sovereign, was not to be taken too literally. Whatever show of deference he might be disposed to pay the latter, under the influence of his present — perhaps temporary — delusion, it was not to be supposed that he would so easily relinquish his actual power and possessions, or that his people would consent to it. Indeed, his sensitive apprehensions in regard to this very subject, on the coming of the Spaniards, were sufficient proof of the tenacity with which he clung to his authority. It is true that Cortez had a strong lever for future operations in the superstitious reverence felt for himself both by prince and people. It was undoubtedly his policy to maintain this sentiment unimpaired in both, as far as possible. But before settling any plan of operation it was necessary to make himself personally acquainted with the topography and local advantages of the capital, the character of its population, and the real nature and amount of its resources.

THE NEXT STORY OF FAMOUS BOOKS IS ON PAGE 5143



The Temple where the Hathor Cow was worshipped.

HOW WE KNOW WHAT HAPPENED LONG AGO

CONTINUED FROM 5000

ONCE upon a time, there were not nearly so many people on the earth as there are to-day. We cannot tell exactly what happened then, because it is so very long ago; but we believe that all the people lived in one small part of the world all by themselves. They were like a big family living together in the same house. By-and-by the family grew larger; more boys and girls began to come, and at last the house became too small for them to live in. So some of them had to find another home. They wandered up and down over the earth, and when any one of them found a comfortable place to live in, there they settled.

So you see, we are all one big family, and though now some nations seem very different from others, yet they are each some relation to the other, brother or sister, or cousin. This is why we find so many of the same words used by different nations; the words *father* and *mother*, for instance, are alike in many different languages.

NATIONS LIVE AND DIE AND PASS AWAY LIKE YOU AND ME

Some of these early nations have died, but others are still living to-day; for nations, just like you and me, are born, grow up, and die, only, of course, it takes them a good deal longer time than it takes us. And perhaps some of the nations that are alive to-day will die and pass away some time in the future. You may have often wondered how we know about what happened long, long ago, before there were any books or newspapers, even before there was writing of any sort. It is quite easy to find out what happened only a hundred years ago, because there are plenty of books that will tell us all about it. But what about things that happened thousands of years ago?

I am sure one of the times you like best, is the time when father takes you on his knee, and tells you stories of what happened when he was a little boy. You will remember many of those stories all your life, and when you grow up you will tell them to your children.

HOW CHILDREN HAVE CARRIED DOWN THE STORY OF THE WORLD

Now, the boys and girls who lived long ago were just as fond of stories as you are. They, too, would ask for stories; and when they grew up, they, too, would tell these stories to their children. So the stories came down to us from the earliest time, when there was no reading or writing, but simply story-telling. That is the first way in which we get to know what happened far, far back. Boys and girls have been very important in handing on to us our story of the world. What a great loss it would have been if those boys and girls who lived once upon a time had forgotten the stories that were told them!

Another way of finding out what happened long ago, is by reading the earliest books. What do you think these books were? Not books such as we have now, but *bricks;* just clay bricks, with writing and pictures marked on them while the clay was soft, and then baked hard in the heat of the sun. Thousands of these bricks have been dug out of the earth at Babylon and other places. When these cities were destroyed long ago, they became gradually covered with earth; the houses, the streets, the libraries, and everything in them were buried under the ground. And down under the ground these bricks have been kept dry and clean and fresh, and so to-day we are able to read the writing and the pictures, and find out what the people in those days were doing.

THE STRANGE STORY OF A DREAMER'S WONDERFUL BOOK

There was a wonderful book called the Koran, which is the Bible of the people who believe in the Prophet Mohammed. The Prophet Mohammed used to have dreams, and in his dreams he heard voices speaking to him. When he woke he would write down what he had heard. If he saw a flat stone, or a piece of leather, or a leaf of a palm-tree, he would use it just as you use a slate or a piece of paper, and cover it with writing. After he died, the young man who had been what we should call the private secretary of the Prophet gathered the stones and leaves together, and from them he wrote out the book which is thought by the millions of Mohammedans to-day to be the most sacred book in the world.

In ancient times when a king did anything of which he was very proud, such as conquering his enemies and taking them captive, he had an account of it carved on a big stone or pillar, and set it up so that people could read all about what he had done. Thousands of these monuments have been found, and there must still be thousands buried in Egypt and parts of Asia. The writing on these stones looks very strange to us. Most of those found in Egypt have pictures upon them, instead of words and letters.

CLEOPATRA'S NEEDLE · AND THE SACRED COW

When you are in Central Park, New York, you should look at the tall column called Cleopatra's Needle. This was brought from one of the great temples of Egypt, and is covered with pictures; we call these pictures hieroglyphics, which means sacred carvings.

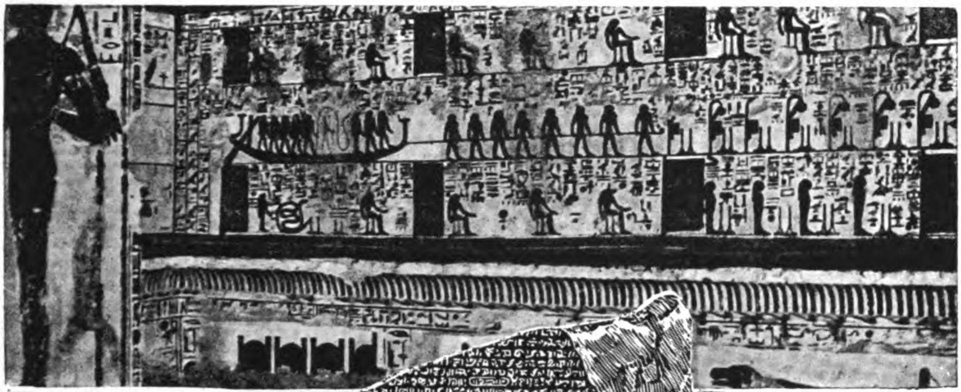
Long, long years ago, in the days of Egypt's glory, it stood as one of two obelisks set at the entrance to the beautiful temple of the sun at Heliopolis, "the City of the Sun." These two great columns, the other one of which stands on the Thames embankment in London, were set up by an Egyptian king who lived over fifteen hundred years before Jesus Christ was born.

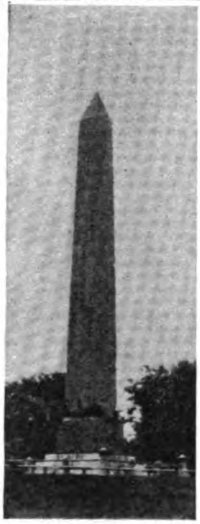
At that time Heliopolis was the greatest centre of learning in the world, but by and by, when the beautiful Cleopatra came to the throne, she built herself a beautiful palace in Alexandria, where she planned to carry the two great monoliths. She died before this was carried out, but many years later they were floated down the Nile to Alexandria. Eighteen hundred years afterward one of these obelisks was given to England and the other to the United States, and it can now be seen, as we have said, in Central Park.

Another monument that tells its story is the statue of the great cow called Hathor which was worshipped as a goddess many thousands of years ago. The cow was a sacred animal throughout Egypt. Indeed, many creatures were sacred, such as the cat, the bull, the goat and the hawk, and temples kept their sacred animals which were looked upon as the divine manifestation of the gods or goddesses in material form. When the first of these old pillars were found, no one could read the writing or understand the pictures.

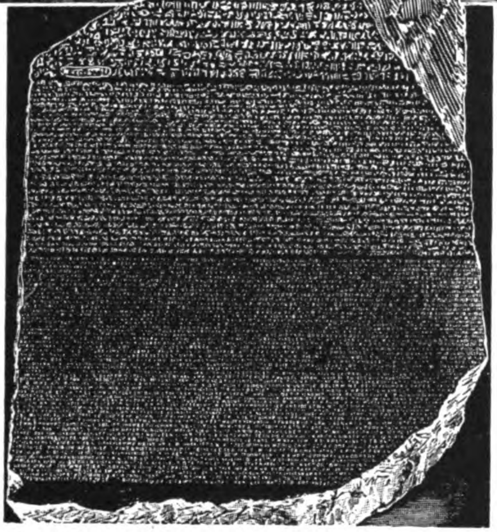
HOW THE WORLD'S STORY WAS FIRST TOLD

The Egyptians painted the walls of their temples and tombs with strange letters and pictures which tell the history of Egypt. This is from the wall of a tomb where the paint is still fresh, though it is thousands of years old



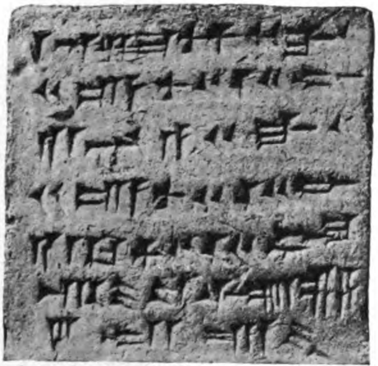


Cleopatra's Needle, once in Egypt, and now in Central Park, New York, shows the strange writing on the Egyptian monuments.

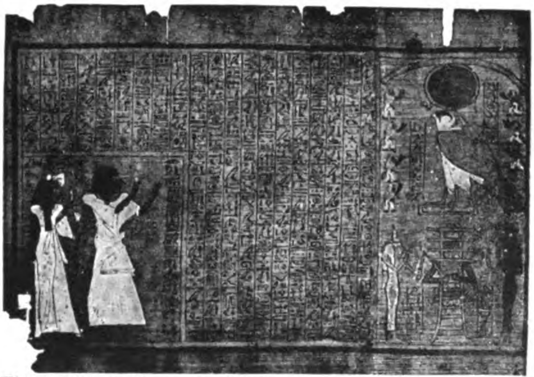


The Rosetta Stone, which taught us to read the strange writing the Egyptians left behind. It said the same thing in three kinds of writing, and one kind was the Egyptian. Men knew one of the other kinds of writing, so that they were able to find out what the Egyptian writing meant.

There was no paper in old Egypt, and the people wrote on bricks and on the dried pith of the papyrus plant, here shown growing.



An early way of writing was to mark soft clay and bake it into a brick like this,



This is a piece of papyrus, showing how the Egyptians used it to write upon. Nearly all these things are in the British Museum.

THE ROSETTA STONE AND WHAT IT TOLD

At last, when all the clever men were about to give up trying to find out what these strange writings meant, some French officers who were in Egypt about a hundred years ago, in 1798, dug up a stone with writing on it, and found the writing was in three languages. One of these was Greek.

This wonderful stone is known as the Rosetta Stone, because it was found at a place called Rosetta. It was captured by the British and carried to England. There men who had a great deal of learning, puzzled over it for years, and at last Dr. Thomas Young, a very wise man, found out that the other two languages which appeared on the stone were the picture writings or hieroglyphics, and the language of the common people.

Now it was easy enough to read Greek, and when he had made out what that meant, he guessed that the picture writing would mean just the same thing. And so it did. That gave people the key to the riddle, and the whole mystery was made clear. They found that an eagle stood for the letter *a*, a leg and foot for *b*, a serpent with horns for *f*, a hand for *t*, an owl for *m*, a chicken for *u*, and so on. A man with his hands lifted up meant prayer.

After reading this one stone, it was easy to read all the other writings on stones and pillars found in Egypt.

WHAT WE LEARN FROM BURIED TOMBS AND TOWNS

Another way in which we are finding out a great deal about early times, is by the opening up of many tombs and graves underground, especially in Egypt.

All kinds of things used to be buried with people in those days; so dry and air-tight were the tombs that everything in them has been wonderfully well preserved. Dolls have been found buried with the little girls who played with them long before Moses lived; a baby's rattle that amused a tiny brown Egyptian baby when Joseph was in Egypt; ladies' combs and mirrors gold ornaments, and jewellery, worn perhaps when the Children of Israel were passing through the Red Sea. And so, little by little, we are finding out what life was like in the old days, and are piecing together the different bits of knowledge that we pick up, just as you put together the pieces of a puzzle to make the whole.

There is one more way in which we are being helped to do this, and that is by finding buried cities and towns just as they were hundreds of years ago. In England people have found a few old Roman towns, such as Silchester and Bath, but these are not very old; only 1,500 or 1,600 years. But in parts of Asia, such as at Babylon, men are digging out whole towns that disappeared thousands of years ago.

Hundreds of precious "stories in stone" have been dug up from beneath the blistering sands of Egypt — great stone columns, withered mummies, priceless wall paintings, the ten great temples of Abydos, the wonderful statue of the Egyptian Queen Tii and many strange and wonderful things. To the wise men who know all about such things, these buried treasures are as easily read as if they were books.

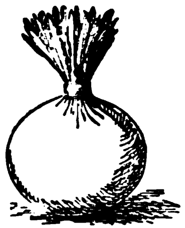
The ruins of one large building, the library of Alexandria, in Egypt, have been found and from the inscriptions on stones and the volumes of papyrus buried under the hot desert sand, we learn that it was a great, big Academy where scholars from all over the world gathered to work together. There were over 700,000 volumes in this library. Just think how much work this represents, when we remember that there was no printing in those days! All the works were written out by hand by men called scribes.

From all these things we have learned that nothing happens by chance. So if we are clever enough, we shall find out why we live and how we are related to one another. For we are really one big family; or we may say that the different nations are like the beads on a string — each bead is different and separate, but they are all joined together by the same string. Through all the story of the world we find this string joining up the beads; through it all we find some plan at work, and see everything being guided and controlled by the hand of God.

CONTINUED ON PAGE 5297.

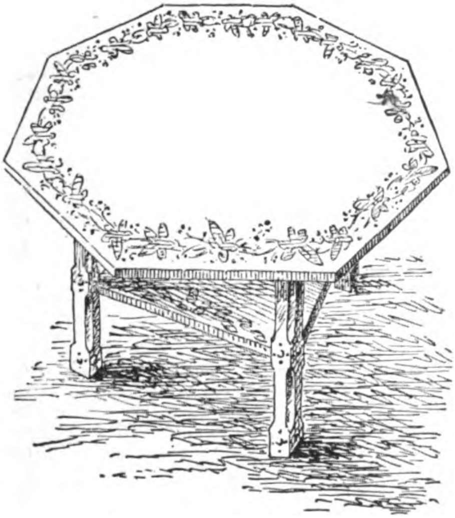
MAKING LEAF PICTURES ON WOOD

Those who have never tried to make leaf pictures will be surprised to find what pretty effects can be got with a very little labour and practically no expense. Some people make a hobby of collecting impressions of foliage and mounting them in albums, just as they collect postage stamps; others use the pictures to decorate these albums. But the most charming way to use these leaf pictures is to decorate white wood furniture —brackets, little bookcases, and such household things—with an impression which is stamped on the wood straight away in colour.



The pad

The things we need for these pictures are quite simple. The leaves themselves can be found everywhere, but chiefly, of course, in the spring and summer. If you have a garden you will find plenty there. If not, get a box with a lid to it, sprinkle the inside of the box with water to make it damp, and take it with you the first time you go out for a walk. Perhaps you will come to a lilac bush and find a few perfect flat leaves. Pluck these and put them in the box. An elm or an oak tree, or more probably a plane tree, with its handsome leaves, will yield a few perfect leaves. These you also put in the box, keeping the leaves moist by shutting the lid on them. Blackberry bushes, currant and gooseberry bushes have leaves which give splendid pictures if you choose those which lie flat without folding on themselves.



A wooden table decorated with leaf pictures

First we shall need some sheets of foolscap paper, blue or white, some very fine muslin, and a large handful of cotton-wool.

Double the muslin in two, to about the size of a dessert plate; take enough of the cotton-wool to make a tightly squeezed mass the size of a baseball, and tie this mass in the muslin, so that the edges of the muslin form a handle.

We also want tubes of oil-colours. The cheaper colours do just as well as the dearer ones, and cost only a few cents. a tube. To start, get a tube of burnt sienna oil-colour—an orange brown, which lends itself to the process—and next a few sheets of cartridge paper. Cut them up in pieces about the size to take the leaves you are going to print from. Fold the pieces in halves, so that when the leaves are ready they can be placed between the folded sheets.

Having got the leaves in the box, the ball of cotton-wool in muslin, the foolscap paper, the tube of colour, and the folded sheets of cartridge paper, begin by squeezing out a little of the colour on to the middle of the foolscap sheet. Dab it with the ball till the colour is evenly and thinly spread upon the paper, and has stained evenly the lower side of the ball. Do not use too much paint—only just enough to give a stain. Take out and thoroughly dry one of the leaves, which will lie quite flat upon the table. Then put this leaf upon another sheet of paper, strike it quite hard with the ball till every part of the leaf receives an equal quantity of colour. You can hold the leaf by its stalk while you do this Take up fresh colour on your pad from the foolscap as it is wanted.

When you think the leaf is evenly covered with colour, place it carefully between a folded piece of the cartridge paper. Lower the upper part down upon the leaf and hold it firmly with the left hand. Wrap the forefinger of the right hand in the fold of an old handkerchief, and rub the paper which holds the leaf. You may rub hard, but rub evenly, and when you think you have rubbed all over the leaf—its edges and veins, and as close to the large veins as you can get—lift the paper and take out the leaf. You will now have a picture of the leaf drawn by itself upon the cartridge paper. If, before you put the leaf in between the folds, you dab the lower side of the leaf as well as the upper, you will have two pictures—one of the strongly-veined back of the leaf, and the other of the smoother and, possibly, hairy side of the leaf. Try to get a good impression of one side of a leaf before attempting the more difficult task of the two sides with one rubbing.

Do not be discouraged if your first attempt is not good. One has to learn how much colour to spread upon the paper, how much colour to let the dabber take up, when the leaf is sufficiently and evenly coated, and, last of all, how much and how hard to rub. One has also to learn to lay the painted leaf on the paper so that it does not smudge. Some leaves, again, take a great deal of colour to give a good impression; others will coat quite readily.

In doing the backs of leaves where the veins stand out quite distinctly, it requires some hard hitting with the pad to get the colour on the veins which lie between the thick veins. Hit hard and do not mind the leaf. Then, when this leaf is between the folded paper, rub hard to get the impression off.

When you have succeeded in getting a good impression, you may think of getting some variety in the colour. One charm of this pastime is that you may use any oil-colour you like, mix any colour you like, and when you get good at the work you may use more than one colour on the leaf, and so get some of the beauty of the autumn tints of leaves.

Each colour will require its own pad and foolscap, however. If the colour leaves the tube thick and unworkable, mix a little sweet oil with it to thin it. By getting the proper colours you get greens, reds, oranges, blues, or combinations of these colours. Get tubes of indigo, Prussian blue, gamboge, and ochre to make all sorts of greens. Indian yellow, light red, and some of the lakes give very beautiful tints. Before putting them upon the foolscap, mix the tints upon the back of a plate with a thin knife, a palette knife is the proper tool, and then spread it upon the foolscap. Try the simple colours first.

Gather leaves that are full grown, not the tender ones which will smash when hit with the pad or rubbed hard. Then the leaves must lie flat. Some bulge between the veins, and when pressed fold upon themselves. Others have very wavy edges, and these lap over each other. A hawthorn leaf makes a good example to start with. Currant and gooseberry leaves are excellent. Plane-tree leaves, while large, are beautifully shaped. A maple leaf is quite exquisitely lobed and does splendidly. Geranium leaves are often good, and their downy upper surface will teach you how to print hairy leaves.

To decorate the leaves of a book do not start in a haphazard way. Think first which are the best kinds of leaves to use, and the best places to put them in.

When the leaves are placed carefully down on the page to avoid smudging, put the upper paper down just as carefully, and rub firmly, but not so hard as with the cartridge paper. The oil-colour will come off much more readily, so it must be put on more thinly. When all the leaves are done, draw in with your brush the stalks and stems to connect them together.

These leaf pictures are often used to decorate furniture. The white-wood tables, brackets, and stools that are sold for the purpose are usually planed and quite smooth. Rub them over with a fine sandpaper to roughen the surface, and brush it clear of wood-dust. Sketch the design out on a piece of paper, and test your leaves upon an odd piece of wood to learn the amount of colour required upon the leaf. Then carefully dab your leaf, and place it so that you get a clear impression. Put on the upper paper and rub. You may press heavily, as the wood will take the colour without spreading. When done, the whole must be varnished to protect the table and drawings.

A HANDFUL OF STRAW AND AN INDIAN

THE fierce-looking Indian shown in the picture is made almost entirely of straw; it is quite simple to make if the picture is closely studied as a copy.

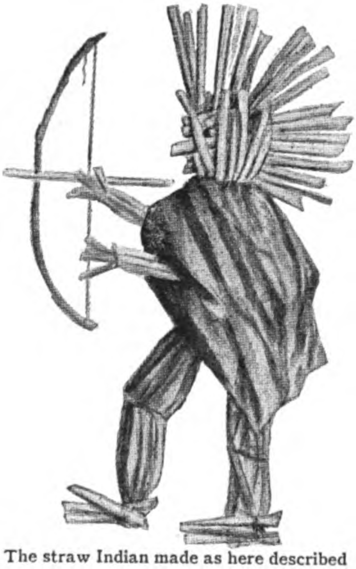
Besides a bundle of straw, we need some odd pieces of narrow ribbon—the sort that is called baby ribbon—a piece of brightly-coloured blanket, a twig, some thin wire, a piece of string, and two black beads.

First take a handful of straw — about 20 pieces should be enough—tie them together with the ribbon about two inches down to make the neck. We are going to make our Indian about six inches high; if you prefer to make him taller, of course it is quite easy to alter the measurements in proportion. Tie the straw again about two inches further down still for the waist. Now divide the bundle into two halves to form legs. Tie the straw again at the knees and finally at the bottom where the ankles come.

The feet are made of short lengths of straw, tied on at the ankle with ribbon.

Give the man a pair of arms, by fixing on each side five straws half-way between the neck and the waist; tie them half an inch from the bottom to form the wrist, and the ends will give the fingers, which can be reduced to natural lengths by the aid of a pair of scissors. If the arms are fixed on with fine wire, they will keep in position better than if ribbon or string is used. Now we must make the head. With the loose pieces of straw at the top as a foundation, fix on with wire about eight short pieces of straw. Cut these like the picture, to form the face and back head decoration, which will look exactly like a Red Indian's feathers. Bind a few pieces of the up-standing straw right round the head to give it shape, and leave the remaining pieces to make more feathers. Cut the short straws to represent the forehead, nose, and chin; thread the beads with wire, and fix them in position for eyes.

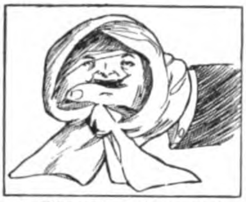
The blanket, of course, must be draped round the body and secured with a couple of pins, or a needle and cotton. Every boy knows how to make a bow out of a twig and a piece of string, and an arrow of straw.



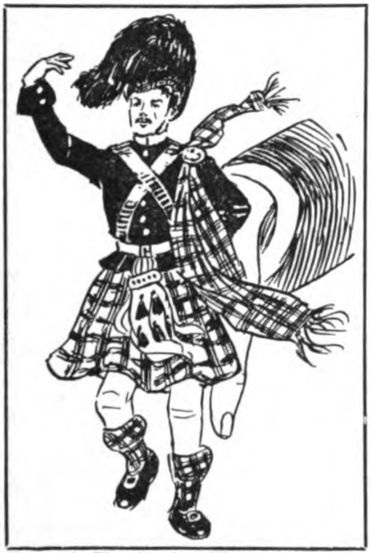
The straw Indian made as here described

A SIMPLE ENTERTAINMENT FOR A PARTY

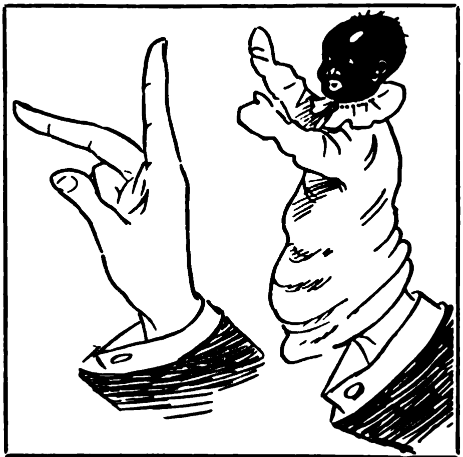
We can cause a great deal of fun and amusement, and keep a party entertained for quite a long time, by skilfully using our hand to give the movements of a face or of a man in action. First of all, we can, with our hand, give a representation of an old apple-woman; and picture 1 shows how this is done. The position in which the hand is held is as follows. The fist is clenched, with the knuckles uppermost, but the thumb, instead of being held tightly round the fingers, is drawn back a little, as in the picture, and the forefinger is slightly loosened to make a mouth.


1. The old apple-woman

We must, before closing the fist in this way, paint two eyes on the hand, one just about where the join of the first and second fingers comes, and the other in about the same position on the other side of the knuckles. Then we paint a nose on the knuckle of the first finger and lips at the opening made by the finger and the thumb. To add to the illusion we put a piece of red rag or an old shawl round the made-up face, and the appearance is then as in picture 1, and is quite realistic and very amusing.


2. The dancing Highlander

By moving the thumb up and down, the mouth seems to open as if the old lady were talking; and if we make up a story as we are moving the mouth, or, better, answer in a humorous way questions asked by the audience, the delight of the spectators will be evident. The first joint of the thumb makes a very lifelike chin. By moving the thumb low down and making the mouth very wide open, the old lady seems to be gaping, and it is amusing to see how, by doing this, we can make many people who are watching our hand also gape. Another amusing performance with the hand is that of the dancing Highlander. We draw a picture of the upper part of a Highlander as far as the waist. Then we fasten to the bottom of this a piece of any cloth material—plaid for preference. Now let us take an old glove, and, after cutting off the two first fingers of it, put the glove on. Our first and second fingers will, of course, come through the holes, and be bare. Next cut off the tips of the fingers that were previously cut from the glove, and put these on the two bare fingers, to look like shoes. Now, if the body of the Highlander in cardboard, with the kilt attached, be joined in some way to the glove, by sticking or stitching, we shall get what is a very realistic appearance of a Highlander, with his kilt, bare knees, and shoes. By moving our fingers about on a table, as shown in picture 2, we can make the Highlander dance; and the effect is heightened by putting down on the table two crossed matches, to represent crossed swords.


3. How the hand is held to work the moving doll

A third way of using the hand for the entertainment of our friends is to represent a clown or magician or Chinaman, as shown in picture 3. We take any head of a quaint doll that may be available. The heads of those cheap Japanese dolls that are sold in the shops are very suitable. To this we glue, or stick in some other way, a bag of coloured calico or rag. The bag should be inverted so that the opening is below, and the head is on what would be the bottom of the bag if it were held in the usual position for putting things into. The bag should have made in it two long pockets, like the fingers of gloves, only longer. Now we are ready to give our entertainment. Holding our hand as in picture 3, we put over it the bag with the head, slipping our forefinger into the opening of the head, our thumb into one of the pockets of the bag, and our second finger into the other. Then we move the thumb and two fingers about, talking at the same time and suiting the actions to the words. With a little skill we can make the figure do the most ridiculous things. With his hand he can pick up a stick, like Punch does in the Punch-and-Judy show.

FORFEITS AND HOW TO PAY THEM

A forfeit is some curious and amusing task which has to be performed by a player who has failed to do what is necessary in any particular parlour game that is played. It may be, perhaps, that he has been unable to answer a question in some question game, or he has failed to find the object hidden in a game of Hunt the Thimble. Forfeits may, in fact, be demanded in almost any game that we play, and at an evening party these games would lose a great deal of their interest if there were no forfeits at the end. The redeeming of the forfeits is often the greatest fun of a children's party. The difficulty is to think of a sufficient number of forfeits, so that all the players may have something different to do. The following suggestions may help us.

FORFEITS THAT ARE DIFFICULT

Some forfeits are tasks that sound quite easy, but prove difficult when we actually have to perform them. One of these is to lie at full length on the floor with our arms folded and then to rise up again, keeping our arms tightly folded all the time. Another task that seems easy, but requires skill, is to pay a compliment to five friends in the room, and not to use any word in which occurs the letter A in speaking to the first, or the letter E to the second, or I to the third, or O to the fourth, or U to the fifth. A third difficult forfeit is to go round the room and to give to everyone present a piece of good advice.

FORFEITS THAT ARE TRICKS

But most forfeits are the opposite of those given above; they are tasks that sound impossible, but are really easily performed. Here is a list of interesting ones that always cause much amusement if carried out, but which give much perplexity to the victim if he does not know how to do them.

To bite an inch from the poker. This is, of course, performed by holding the poker so that the end is about an inch from the mouth, and then to imitate the act of biting.

To put yourself through the keyhole. We write the word "yourself" upon a small slip of paper, fold this up into small compass, and then pass it through the keyhole. There are other forfeits of a similar character to this, which are performed in a similar way, such, for instance, as to sit upon the fire. The words "the fire" are written on the paper.

To put one hand where the other cannot touch it. This is easily performed by holding the left elbow with the right hand.

To ask a question that can be answered only in the affirmative. We simply ask someone to say what word the letters y—e—s spell.

To go out of the room with two legs, and to come back with six. This is done by walking out, and returning with a chair.

To put three chairs in a row, take off our boots and jump over them. We put the chairs in a row, then, taking off our boots, jump over *them*—the boots—not over the chairs.

To place some small object like a book upon the floor in such a way that none present can jump over it. We do this by putting the book close up against the wall of the room.

To take a friend upstairs, and bring him down upon a feather. The friend chosen should always be a big and stout man, which makes the task seem all the more impossible; but if the payer of the forfeit knows the trick, he will retire with the friend, and then return carrying in his hand a soft, downy feather, such as is used to stuff pillows, and, presenting this to his stout friend, can say that he has literally brought him down upon a feather.

FORFEITS THAT CAUSE GREAT FUN

There are some forfeits that cause very great fun because the task set is impossible to perform without the player getting into difficulties, or being able to escape from saying something foolish about himself. There are several forfeits of this character.

That was I. The player has to go all round, asking each person present what he has seen lately, and to every answer he must respond "That was I." Of course, the objects that are mentioned are such as a donkey, a baby, a dunce, and when the victim responds "That was I," there is great laughter.

To act the statue. In this forfeit the victim has to remain perfectly passive while one player after another puts him into some ridiculous position, and at each change he has to remain still until permission is given to move. Of course, someone will make him stand on one leg, among other amusing positions.

To act as a dummy. This is something like being a statue. The player has to remain perfectly silent, and to do whatever he is commanded by the different members of the company in turn.

To laugh in one corner of the room, to weep in another, to sing in another, and to dance in another. Of course, at each separate operation the whole company laughs merrily.

FORFEITS THAT NEED SKILL

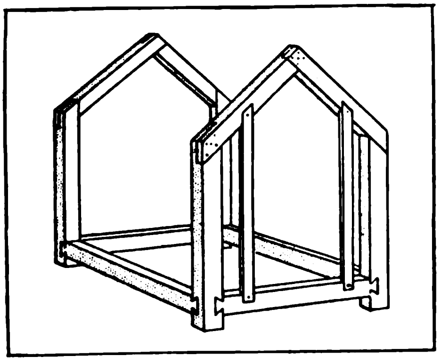
Another class of forfeits need real skill and tact and quick thought to carry out successfully. Two such may be given.

To make a sentence according to the letters given. Each member of the company in turn mentions a letter of the alphabet to the payer of the forfeit, and he then has to speak a sentence in which the words shall begin with the letters that were given to him, and in the order given. Thus, if the letters were n, d, y, t, t, i, v, f, a, i, a, o, y, o, the sentence might be "No doubt you think this is very funny, and I am of your opinion."

To use three articles named. In this forfeit the names of three articles are given to us, and, without a moment's hesitation, we have to say how we should use these for the benefit of some lady present. For example, the names might be chain, hand, cloak; and a suitable sentence would be: "I would fasten up with the chain any who tried to do her harm; I would give her my hand to help her into her carriage; and I would gladly lay my cloak in the road, so that she should not soil her shoes with the mud as she walked."

MAKING A KENNEL FOR A DOG

THE size of the dog-kennel that we shall make will depend upon the size of the dog that is to occupy it. In making our kennel we must consider the comfort and health of the dog for whom it is to serve as a house and sleeping place. We shall assume that our kennel is to stand in the open air, in a corner of the garden, for instance. We must select a corner where it will not be too much exposed in bad weather, and where it will be sheltered from the cold and biting winds.

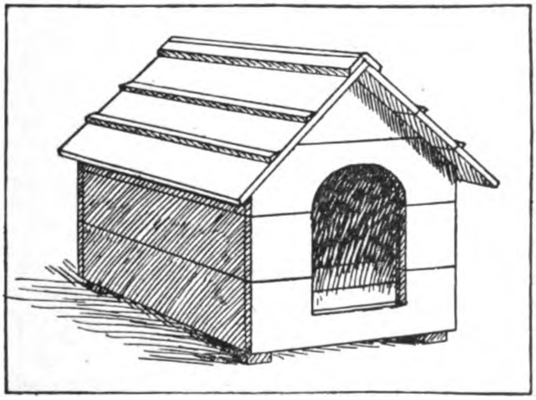


1. The framework of the dog's kennel

The kennel itself must be made so that it stands a little way off the ground, in order to keep the floor dry in wet weather, for dogs take cold as well as human beings, and love warmth and comfort almost as much as we do. Also we must provide ventilation so that there is always a current of air through the kennel. Then our dog's bed must be of a nature to make him comfortable. A piece of rug or carpet, or a little clean straw on the floor of the kennel, will do very well.

The length of the kennel inside should be half as long again as the dog when he stretches himself out, and the width inside should be wide enough to allow him to turn round without difficulty.

The first thing that we make is the frame of our kennel, which is shown in picture 1. The wood used should be two inches square. This is quite strong enough if we join it properly where the pieces meet. The picture will show us clearly how the wood is checked at the corners. Care should be taken to make the joins fit well, because upon this the strength and durability of the kennel will depend.



2. The kennel as it appears when finished

When we have made the frame, we may proceed to make the floor and walls. The floorboards should be thick—not less than three-quarters of an inch—for thickness means warmth. They are laid across from side to side on top—not under—the long frame-pieces seen in picture 1, and nailed into position with good strong nails. Now we can put on the sides, made of wood running from front to back, as seen in picture 2. This wood should be not less than half an inch thick. It is important to have the edges of these boards smooth and straight, so that we can put the pieces tightly against each other without leaving a long crack through which a draught would come into the kennel and harm the dog.

The front and back must next be made and fitted. We make the back boards similar to those from which we made the sides, and nail them across. At the top we must saw the ends off so as to slope to the shape of the sloping frame that forms the end of the roof. Again, we must see that the boards are fitted tight up to each other, so as to leave no draught space. Now we are ready for the front. It is made exactly the same as the back, except that we must leave an opening with an arched top to form the doorway. The two extra upright pieces in the front of the kennel hold the short front boards at each side of the doorway. We can make the top of the doorway arch-shaped by first marking the rounded shape with a pencil, or by cutting out a paper pattern. Now we cut it out by following the marks with a keyhole saw, if we have one, and, if not, we can use our chisel to do the work.

We have still got the two sloping roof-sides to put on. The boards for the roof should be fairly heavy, and they should project about three inches over the front and back, and about two inches over each side, as seen in picture 2. This prevents the rain from running down from the roof on to the sides of the kennel. Finally, we put slips of wood, cut to the shape seen in picture 2, over each seam in the roof, so as to prevent the rain from finding its way into the kennel. The construction part of our kennel is finished; but we should bore five or six holes through the side walls under the projecting roofs, so as to provide the ventilation which is so necessary for the dog.

We may paint the outside of the kennel with two coats of paint of any colour we think suitable, waiting until the first coat is dry before applying the second, and we should give the inside a coat of lime-wash. A very good colour for the outside is dark green. This is a serviceable colour and always looks well.

GAMES TO PLAY WITH MARBLES

RING-TAW

A circle of about a foot wide is drawn on a piece of smooth ground, and in it is placed a number of marbles, one or two from each player. Outside and around this, some six feet away, another circle is drawn. The beginner then kneels, with his hand against this outer line, and shoots his playing marble, or "taw," at the group placed in the central ring.

This is done by pinching the taw between the knuckle of the bent thumb and the curve of the forefinger, and suddenly straightening the thumb. If he knocks any out they are his, and he may aim again from the spot at which his taw has stopped. If, however, he misses, and his taw remains within either of the rings, he must leave it there, in case the next player wishes to shoot at it. If hit, the owner of the taw must hand over one marble, but no taw can be taken, and it can be aimed at only once. The game continues in this way till all the marbles are knocked out of the ring.

OVAL RING-TAW

This is another, though more unusual, way of playing ring-taw. Instead of a circle, a large oval, about three feet long and two feet wide, is drawn. At each end of this a small space is marked off by a straight line from side to side of the oval, and midway between these two spaces a small cross is made. On this mark a marble is placed, and one in each of the end spaces. A straight line, as long as the oval is wide, is scratched on the ground, at a distance of four feet from the end of the oval, and from this line the taws are shot by the players.

The player may shoot from any part of the line, and should choose a position that gives the best chance of hitting one of the three marbles. It is a common practice to "lay up,"—that is, to shoot the taw with little force, so that it rolls into the ring and makes the next aim easier. But, as each player shoots in turn, this puts the taw in danger; yet boys are willing to run the risk of having their taws knocked out by others, rather than shoot them through the ring time after time without hitting anything. Though in this game there are fewer marbles to aim at, it is more exciting and interesting than ring-taw.

PITCHSTONE

Two players with two marbles play this game. One boy throws his marble down. If his companion can hit it with his own, he wins ten marks, and has the right to try again, aiming from the spot at which his marble stops. He may keep on till he misses, when the other player takes a turn. A certain number should be fixed upon—say, one hundred—and the player whose marks reach this first will be the winner. Sometimes this game is played with smooth pebbles.

PICKING PLUMS

After drawing a long, straight line, each player places upon it one or more marbles, all separated from each other by an inch or two. Then another line is drawn at a distance of eight feet, and each player takes his turn to shoot once at the "plums." Those he knocks out he is supposed to keep as his own; every time he misses he gives up a marble.

PYRAMIDS

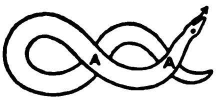
The pyramid is made by one of the players placing several of his marbles close together in a group and others on the top of them. Round this pyramid a little circle is drawn. He then agrees that any of the other players may "shoot" at it by paying him one marble for every shot. If the aim is successful, the marbles that roll out of the ring belong to the boy who knocked down the pyramid. It has to be built up again for the next "customer." Of course, the owner makes his profit out of those who aim without hitting, which very often happens.

WALL MARBLES

Two players take their stand opposite a wall, against which one of them tosses a marble. When it has rebounded and rolled along the ground, the second player follows suit with one of his own marbles, trying to throw it in such a way that in rolling back it shall strike the first marble. If successful, he takes up the one so hit as a prize, but leaves the marble he threw where it lies. Under no other circumstance must a marble be picked up until all the marbles of each player have been thrown. Then those lying farthest from the wall may be taken up in turn and tossed against the wall. It requires skill and judgment to play this game.

THE SERPENT

This is a game that French boys play. The outline of a serpent is drawn on the ground, with two coils, as the accompanying picture shows. The eye of the serpent is a small hole made in the ground. The players start from the tail, and in turn shoot their taws along between the curved lines. Any who send their marbles outside these lines, or allow them to pause at either of the two points marked A A, must go back to the tail. Also, he whose marble is struck by that of another while on the journey to the head must begin again. The boy who first reaches the eye, and rolls his taw into the hole, is counted the winner.



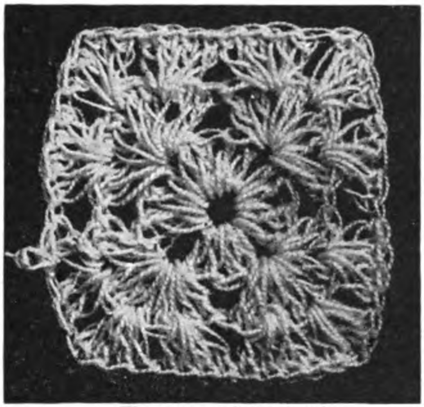
STAND-UP MEGS

To play this game we make or draw a two-foot ring about eight inches from a fence or wall. A line is drawn about seven feet long from the centre of the ring, and another line is drawn across the end of this, at which the players take their stand. Any number may play, but from three to six players provide the best game. A large alley is placed in the centre of the circle, and the players take it in turns, in a standing position, to shy at the alley with a taw. If the player misses he pays a marble to each of the other players, and if he hits the alley he receives a marble from each and goes on shooting until he misses, when it is the next player's turn.

HOW TO CROCHET A SHAWL

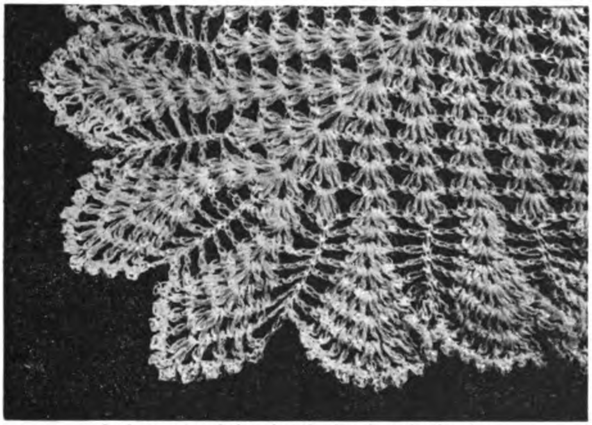
The square crocheted shawl described here is made of fingering, a fine soft wool like Shetland. Most people prefer it in white or grey, and as both wash well, we can take our choice. We shall need for a shawl of fair size about three-quarters of a pound of wool, obtainable at 10 cents an ounce, or $1.25 a pound. Coarser kinds can be bought for 5 and 6 cents an ounce. As it can also be bought by the skein, it is easy to get more if the original quantity proves insufficient.

The shawl will unavoidably get handled a good deal in the making, and as it would be a pity to spoil its freshness in any way, after a few rows are completed, the worker will find it a good plan to keep the shawl in a clean pillow-case while making it, the edge of the side being crocheted alone appearing through the opening in the case.


1. The centre of the shawl

For crocheting wool, one of the five-cent black flexible crochet hooks will be found light and comfortable to work with. If this is our first attempt at this kind of fancy-work, we should turn to page 1348, where different kinds of crochet stitches are fully explained.

And now for the pattern of our shawl. The stitch is quite simple, for it consists only of chain, trebles, and a few doubles when we come to the border, combined in different ways. But one word of warning: let the treble stitch be long in the loop, and the whole loosely worked, for a tightly crocheted woollen shawl mats and gets hard in the wash. We start by making 6 chain, and join the ends to form a ring by drawing the wool through the first loop. Next we crochet 3 chain, which will in future mark the starting-place for a round; then we work 15 trebles into the ring, draw the wool through the 3rd stitch in the little chain of three, and thus complete our 1st round. To start the 2nd round, we make, as before, a chain of 3, then, passing by the chain below, we make 8 trebles between that chain, which really represents the first of 16 trebles, and the 1st treble we made. We now pass by 4 trebles below, and make 8 trebles into the space between the 4th and 5th trebles below. Passing by 4 more trebles, we again make 8 trebles, this time between the 8th and 9th trebles, and repeat this once more between the 12th and 13th trebles.


2. A corner of the shawl, showing the border

The groups of 8 trebles are the starting-points for the corners of the shawl, and it is from the centre of each 8 that we shall have to increase the stitches as we proceed. Now, if we look at what we have done, we begin to see the tiny centre of the shawl; and, even at this early stage, it is well to square it into form with the fingers. We join up to finish the round, and make 3 chain as before.

In the 3rd round we simply crochet 4 trebles between the 2nd and 3rd, the 4th and 5th, the 6th and 7th trebles of each of the 4 groups of 8 trebles. The result is seen in picture 1.

In the 4th round we do the same thing with one change. At each corner there are now 4 trebles—not 8, as in the previous round—and by working 8 trebles into the middle of the 4 we increase the size.

In the 5th round we make 3 sets of 4 trebles at each corner, just as we did in the 3rd round. Thus *every alternate row has 8 trebles at a corner*. This point we must be very careful about, or we shall find the shawl getting out of shape and puckered; yet we shall become so accustomed to working 4 trebles that we may easily forget whether it is the turn for eights or fours. So look well to the corners.

As the shawl progresses, we shall notice how far a skein of wool goes, and how large we shall be able to make the shawl with the wool at our disposal. A generous allowance must be left for the border, which consists of seven rounds, the last with an edging, and the first three alike. They make the "shell pattern" as follows:

1st Round—4 trebles between 2nd and 3rd trebles below, 2 chain. 1 double between 2nd and 3rd trebles below, 2 chain. Repeat to end.

2nd and 3rd Rounds—As above, but making double through double below.

4TH ROUND—1 treble between 1st and 2nd trebles, 4 trebles between 2nd and 3rd trebles, 1 treble between 3rd and 4th trebles, 2 chain, 1 double through the double below, 2 chain. Repeat to end.

If we look at picture 2, we see that from the 4th round of the border 1 extra treble is made each side of the scallop to enlarge it in this and succeeding rounds, and in this way the shell form is obtained. We therefore proceed in this way:

5TH ROUND—1 treble, 1 treble, 4 trebles, 1 treble, 1 treble, 2 chain, 1 double, 2 chain. Repeat to end.

6TH ROUND—1 treble, 1 treble, 1 treble, 4 trebles, 1 treble, 1 treble, 1 treble, 2 chain, 1 double, 2 chain. Repeat to end.

7TH ROUND—This needs care, for it has only 3 trebles at the point of the scallop, and an edging along it. We proceed in this way:

1 treble, 3 chain, 1 double into the last 2 loops of the treble just made. This forms the pointed edge seen in picture 2. 1 treble, 3 chain, 1 double, 1 treble, 3 chain, 1 double, 1 treble, 3 chain, 1 double, 3 trebles, each with 3 chain, and 1 double for edge. The other side of the scallop is a repetition of the first. Then we proceed as in previous rounds—2 chain, 1 double, 2 chain.

The corners of the border should offer no difficulty, the scallops being worked exactly as they come, whether one happens to fall just at the corner or not.

WHAT ARE THESE PLANTS?

A BOTANICAL PUZZLE GAME FOR BOYS AND GIRLS

HERE we have a plant puzzle game in which six plants are correctly described to us, and from these descriptions we should at once be able to name the plants. The right names are given upon page 5202.

1. On the southern shore of England, where the tide washes over it every day, among rocks and shells, there lived a little brown plant. It had a root and branches that were tough, quite unlike the hard woody twigs of a tree. It would have liked to grow pretty flowers, but it could not manage that, so it gazed instead at the lovely sea-anemones that lived on a rock opposite. All its life it had dwelt in the same little crevice of a rock. In the hot summer days it used to get flabby and limp in the blaze of the sun, and it thirsted for the cool refreshing water to revive it. When the tide came up, it pushed up its branches and waved them in sheer pleasure. A branch once floated on to the sand and lay there till a little boy came along. He picked it up, and "Pop, pop, pop!" it went as he pressed it between his thumb and fingers. What was the plant called?

2. There is a very strange plant growing in a meadow, so strange that one might think it a magic plant. It chooses a funny time to do all its growing, for it grows up in a night. It is a pale white thing, and we have to search quite underneath it near the stem to find any colour. There are rich brown plates under the white cap, all placed evenly side by side like the spokes of a wheel. We gather it and eat it for dinner with beef-steak. What is it?

3. June is the month of flowers, and then all the fields and hedgerows and gardens are gay with them. Here is a flower growing by the path through a field; perhaps it would be more correct to say numbers of yellow flowers all on one long, slender, jointed stem. The little pistil in the middle of the flower is also long and divides into two. Two long-stalked stamens balance the powdery anthers with their pollen. Sets of scales protect these and keep out the wet. The leaves are long, pointed, and narrow. "How sweet it smells!" says a little girl as she comes to a haystack at the corner of the field; but she does not think the plant has anything to do with the haystack. What was this plant's name?

4. Someone gave a brother and sister a slightly flattened, round, brown thing, dry and hard, which reminded them of an onion. The friend who gave it them asked for a bowl, put some pieces of charcoal in the bottom, then some cocoanut fibre mixed up with broken shell, and buried the dry brown thing in it. "Keep it wet, and put it away in the dark," the children were told. So every day they had a look at the bowl, until at last a light green point began to show through the brown coat. Then they were sure it was a plant, and brought it out into the light and put it in the window for the sun to help it grow nice green leaves. When it was still quite young it sent up a flower-stalk, and as the days went by the buds opened out into beautiful bell-like pink flowers, so sweet-scented that their fragrance filled the room. What was the name of this plant?

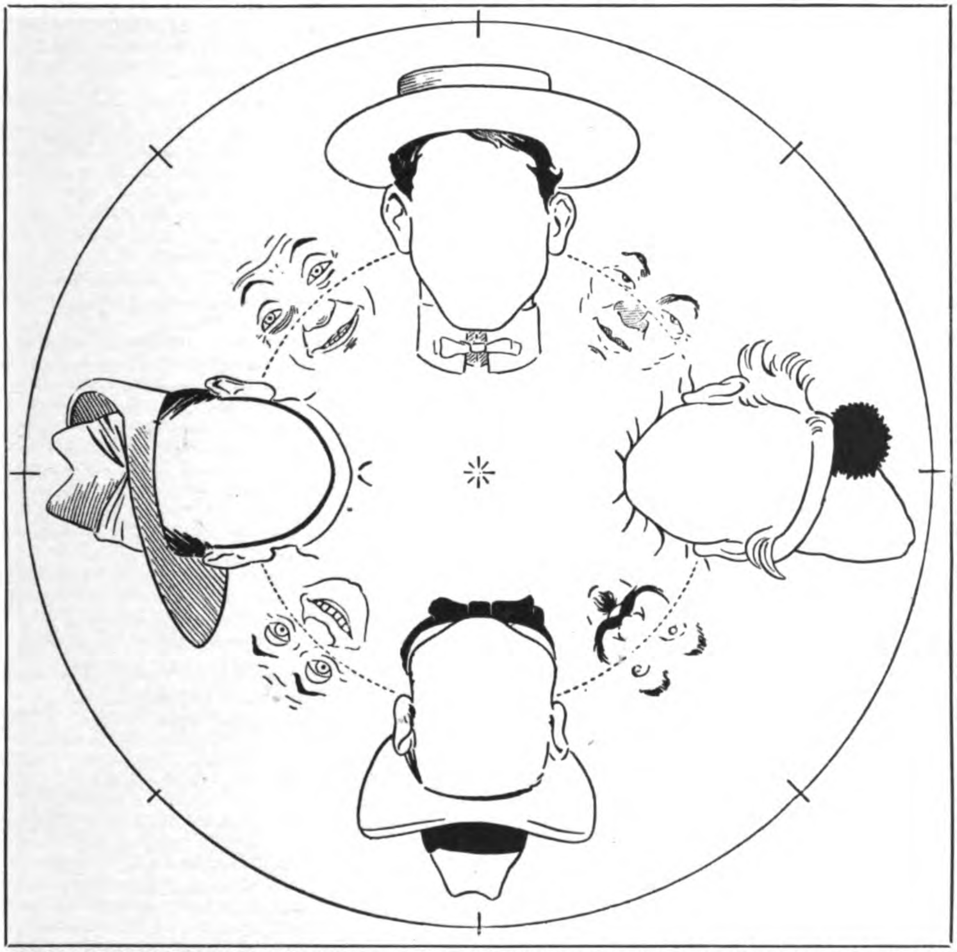
5. Millions and millions of just one kind of plant! It takes hours and hours to pass them in the train, and our eyes get dazzled with the golden colour. What a wonderful plant! Let us take home a seed, and put it in some damp sand. Six days later it will have grown a little hairy root downwards and two more are just appearing beside it. Upwards into the air it will send a shoot, and about ten days later a leaf will have grown out of this. All the early summer it goes on getting taller. Then it puts forth flowers, though we should hardly know them for such. These produce seeds, and how precious these seeds are! Without them we should go hungry, for they are our daily food. What is the plant?

6. On one of the sunny isles of the South Sea is a very tall plant. Its pretty, feathery-looking leaves all grow at the top. Every year it has been growing nice things that are really seeds, sometimes two hundred of them, for the children in England, things they like to eat and drink, and make into sweets, cakes, and biscuits, and sometimes use for making soap and for oil for lamps. They are all wrapped round with brown coats that are made into matting, mats, and baskets. What is the plant's name?

HOW TO DRAW HUNDREDS OF FACES

With the diagram on this page we can draw hundreds of different pictures, even though we may not be artists in any sense of the word. First of all, we should take a piece of good tracing-paper and trace the diagram upon it quite carefully and accurately. Then we should ink over the lines, and when the ink is quite dry paste the tracing-paper with the design upon a piece of cardboard. To do this, cover the card with a smooth paste and lay the tracing-paper upon it, smoothing out all wrinkles with a clean cloth. When this is dry, we are ready to draw any number of faces. Take a piece of tracing-paper and pin it down upon the card, pressing the pin through the centre of the diagram where a star is marked. Now we must trace any one of the hats upon the transparent paper. Then let us turn the paper round until the hat that we have drawn comes over one of the other hats in the diagram. Now trace the shape of the face that appears under our hat. Again turn the tracing-paper round until one of the pairs of eyes comes into position within the outline of a face that we have drawn. Trace the eyes with pencil, and finally turn the paper round to another position and trace a nose and mouth. We now have a complete face with eyes, nose and mouth, hair, and hat.

By ringing the changes and drawing the different eyes in the different face outlines, and putting sometimes one hat or mouth and sometimes another, we are able to make hundreds of different pictures. There are one or two things to remember if we want to be successful in thus producing an imaginary portrait gallery. The tracing-paper must be pinned down firmly upon the card and must not be allowed to shift about, or the different parts of the different faces will not join up properly. Then we should use a soft black lead pencil in tracing the faces, and we must not press too heavily or we shall indent the card and spoil the diagram. We can ink over the pencil-lines afterwards.



BY FOLLOWING THE DIRECTIONS, WE CAN, FROM THIS DIAGRAM, DRAW HUNDREDS OF FACES

WHAT TO DO IN CASE OF ACCIDENT

It is an old saying that accidents will happen, and so it is just as well that we should know what to do when they have happened. In all accidents the best thing to do is to send for a doctor at once, and in the meantime we must aid the injured to the best of our ability. We can often prevent much suffering, and perhaps save a life, by carrying out the simple rules that are set forth on this page, and we must remember to act promptly and calmly, and, in most cases, see that the injured person has a thoroughly good supply of fresh air all the time.

TO TREAT A BROKEN LIMB

There are many things that would serve as temporary splints in cases where a limb has been broken, and perhaps those most easily obtainable are walking-sticks or umbrellas. The splint may be bound on by a handkerchief, necktie, or even a belt. Failing a splint, an injured leg may be bandaged to the other one, or an arm to the body.

A handkerchief should be folded diagonally, and passed round and round the limb and splint, then tied outside the splint. Or the bandage may be folded lengthways, and placed across the splint. Then the ends should be carried round the limb and splint, and one of them must be passed through the loop made by the fold, and tied to the other end. It is important that the limb should be moved as little as possible until a qualified medical man has attended to the break.

TREATMENT OF BURNS AND SCALDS

A burn is caused by dry heat, a scald by moist heat, usually boiling water. When the injured part is covered with clothing, the clothing must be carefully removed, and if it adheres to the skin it should be cut away from around the injured part. Air is to be rigidly excluded; this is effected in the case of a slight injury by dusting the surface with flour or a pure powder such as whiting, and tying or bandaging cotton-wool or a piece of flannel over it.

A bad burn that has caused blisters must be covered with strips of soft linen or lint dipped in olive oil, linseed oil, or carron oil, or the lint may be smeared with vaseline or lanoline; should none of these things be available, unsalted butter or the raw white of a good egg may be used. A scalded foot should be placed in warm water, not too hot, till the dressings are ready. The body should be kept comfortably warm, and a warm drink is a good thing to give to the sufferer.

TO RESTORE THE HALF-DROWNED

We must loosen the clothing, and wipe the mouth inside and out to free the air-passages from froth and water. Then we lay the patient face downwards, raising the chest with a pad, and resting the forehead on the right arm. We press our hands on the back over the lower ribs for three seconds, then we turn the body over and repeat the pressure. We do this alternately till the lung-passages are quite clear.

The following is the Sylvester method of treatment: The person is placed on his back, with a pad under the shoulders, the tongue is held out or secured with a handkerchief or band, while someone behind the head grasps the elbows and carries them from the sides upwards and down over the head to induce inspiration; then back again down to the sides to induce expiration.

These movements are repeated fifteen times a minute till the patient begins to breathe naturally. We must wrap him in blankets and use hot-water bottles to restore the circulation of his blood. It is essential that we should get him off to bed as soon as possible.

TO STOP CUTS FROM BLEEDING

If we cut ourselves, the blood may come from the wound in a steady flow or in bright red spurts. In the latter case an artery is cut, and a thumb must be pressed above the cut, between it and the heart, until a pad, such as a cork, stone, or some other small object, can be tied tightly in its place. Everyone should know the position of the chief arteries of the body, for a few minutes' blundering may cost a life.

In case of a cut vein, we should apply a pad and bandage to the wound, on the side away from the heart. A dirty flesh-wound should either be washed, or, if no water is obtainable, wiped with a clean handkerchief, and bandaged with another handkerchief.

It is better to cover the wound with a piece of blank white paper, such as notepaper, rather than let a soiled handkerchief touch it. The edges of a clean cut should be pressed together, and covered with antiseptic rubber plaster. A wound should be washed, whenever possible, in luke-warm water, cleansed properly with an antiseptic, then covered with lint, and finally bandaged.

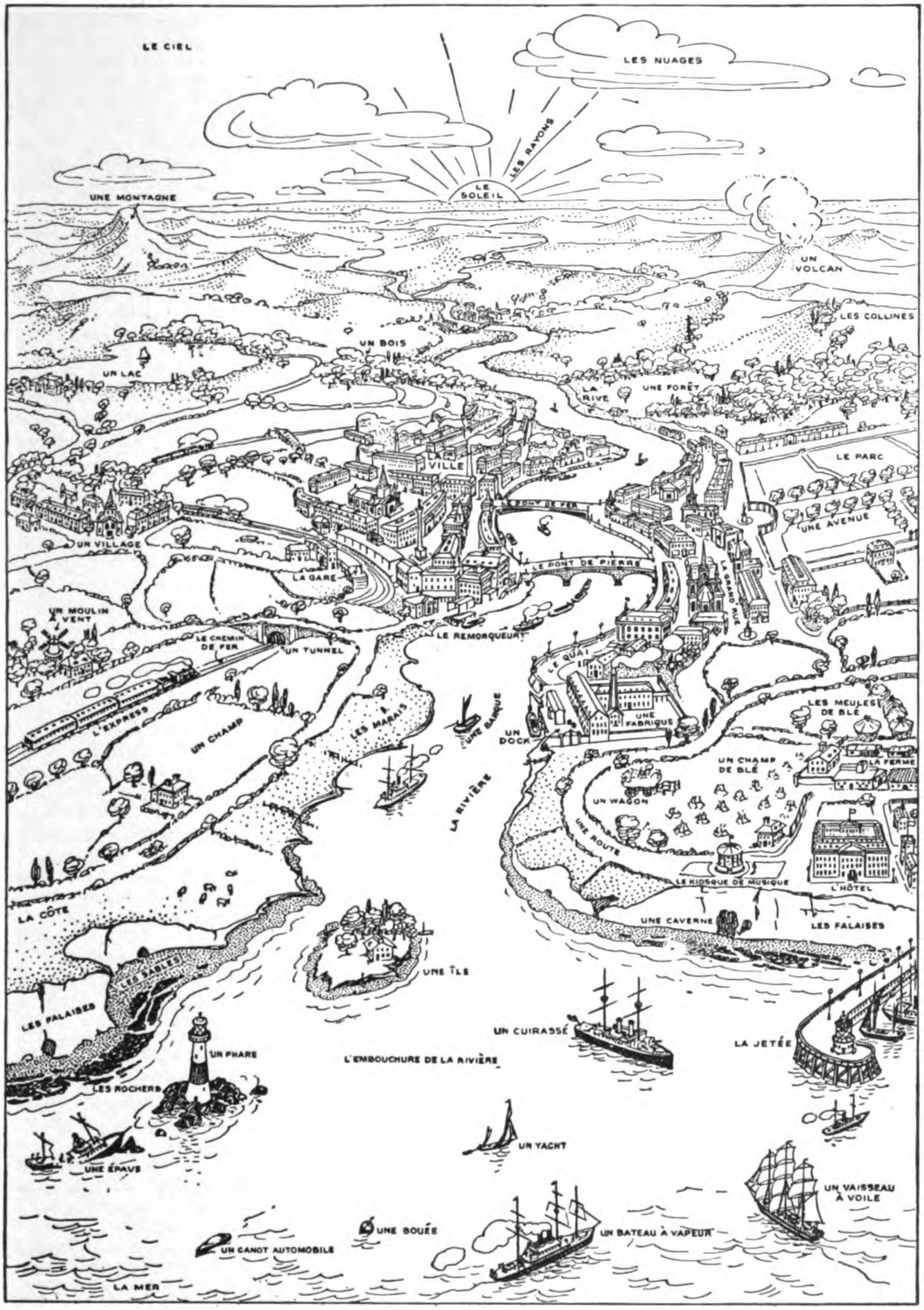
TO TREAT CASES OF POISONING

Each poison has an antidote, and if a person has taken a corrosive poison, which causes burning pains and discolours the lips and mouth, we should at once make him drink something like milk, white of eggs, or olive oil.

If the person has not taken a corrosive poison, we should force him to drink something that will make him sick. A tablespoonful of salt or a dessert-spoonful of mustard in a glass of warm water may do this, or we may even try tickling the throat with a feather or thrusting a finger down it. Milk, eggs beaten up in milk, olive oil, or linseed oil are very helpful; but no oil should be given in cases of phosphorous poisoning. On no account must we let the person go to sleep, and a good strong cup of tea or coffee would help a great deal in keeping him awake.

By following simple directions such as have been given here, it is astonishing what serious consequences may be avoided, and in every case the patient is saved from much suffering. The great need is for us to be ready in all emergencies to do whatever may be the right thing for the occasion.

AN OBJECT-LESSON IN FRENCH



From this bird's-eye view we can learn the French words for the many objects which are shown. The French name is printed against the object it describes. Reading from left to right downwards, we have the French words for the sky, the clouds, the rays of the sun, a mountain, the sun, a volcano, the hills, a wood, a lake, the river-bank, a forest, the town, the park, the iron bridge, an avenue, a village, the railway station, the stone bridge, the high street, a windmill, the railway, a tunnel, the tug-boat, the embankment, the express train, a field, the marshes, a barge, a wharf, a factory, the cornstacks, a cornfield, the farm, the river, a waggon, a road, the bandstand, the hotel, the cliffs, a cave, the coast, the sands, an island, a cruiser, the pier, a lighthouse, the mouth of the river, the rocks, a wreck, a yacht, a buoy, a steamer, a sailing ship, a motor-boat, and the sea.

SIMPLE TRICKS FOR ODD MOMENTS

There are many simple tricks that may be performed with little or no apparatus that cause a great deal of fun and amusement at any gathering of our friends.

For instance, we announce that we can place a glass of water upon the table, cover it with a hat, and then drink the water without removing the hat. This sounds an impossible task, and everyone is anxious to see the trick performed.

It is done in this way. We stand a glass of water on any ordinary table, borrow a hat and place it over the glass. While doing this we talk and emphasise the wonder of the trick we propose to show our audience, and we say that on no account must anyone touch the hat.

Then we go under the table and make a pretence of drinking the water through the wooden table. Everyone is, of course, sceptical, and, after coming from under the table, we ask one of the audience to remove the hat to see if the water has been drunk or not. As soon as this is done, we seize the glass and drink the water, and then announce to our surprised audience that we have done what we promised to do—namely, to drink the water without removing the hat, someone else having removed the hat for us.

Another simple trick is to take two cents from our pocket, and then ask if anyone in the audience will lend us a cent. Of course, someone immediately does so, and we now have three cents. Placing the cents down on the table one after the other, we count them as we do so, saying:

"One, two, three—that makes four cents."

"No, three cents," says the one who lent the cent.

"One, two, three—that makes four cents," we repeat, as we count out the three cents again, and regard our friend with a surprised look.

Our friend insists once again that we have three cents only, and then we exclaim:

"Well, can I keep the cent if I am wrong?"

In nine cases out of ten the answer that will be given will undoubtedly be "Yes."

"Well, I *am* wrong, so I keep the cent," we reply, and our friend then realises that he has been tricked, while the audience laughs heartily. We should practise this before trying it at a party, for the success of the trick depends upon there being no hesitation in the counting.

There is another simple trick which usually mystifies an audience and creates much interest. We undertake to pick a marked penny out of a hat without seeing it. First of all we borrow a hat, and then ask three or four members of the audience to put a penny each into the hat. We next cover this with a pocket-handkerchief, and talk for a minute or two to allow of the coins getting perfectly cool.

Now we ask any member of the audience to take one of the coins from the hat and put a mark upon it, after which he is to return it to the hat and cover the whole with the handkerchief again.

Then comes the climax of the trick. Approaching the hat without looking at it, we talk of the wonders of magnetism, and, putting our hand under the handkerchief into the hat, extract the marked coin, to the astonishment of all beholders.

The explanation is as follows: In marking the penny, the member of the audience handled it for some few seconds, and the heat of his hand was communicated to the penny. When we feel the coins in the hat, the warmth of the one that has been handled is quite perceptible, and we are able to identify and to bring it triumphantly from the hat.

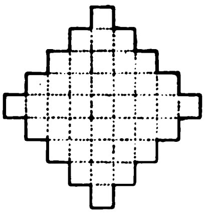
To be still more certain that the penny selected and marked shall be warm, we can ask the one who marked it to hand it round among the other members of the audience, so that they may all examine it thoroughly and be able to recognise it again when they see it. This adds to the importance of the trick and creates greater interest, besides ensuring success.

Simple tricks like this that cost nothing at all for apparatus, and that require very little skill to perform, often give the greatest amount of pleasure to those who see them.

THE PUZZLE OF THE MYSTERIOUS SQUARE

One afternoon Kenneth could not go out as it was wet, so he went into his father's library and began to look at some of the books. After a little while he came across a book of Eastern tales, and in it he found many interesting problems that the wizards of the East had invented to amuse their royal masters and their friends.

One of these problems he could not solve, however much he tried. He puzzled and puzzled over it for a long time, but all was useless. Picking up the book, he went and pushed open the study door and peeped into the room. Seeing that his father was not very busy, Kenneth went in and asked if he would show him how to do the puzzle.


The wizard's figure

In the book that Kenneth gave to his father was a drawing exactly like that shown here, and the puzzle was to cut this figure into four pieces, by means of two straight cuts, so that the four pieces, when put together in a certain way, would form a perfect square.

"Why, it is quite simple," said his father, with a laugh, after looking at it for a short time. "Take it away, Kenneth, and try again to do it yourself, and if you do it by to-morrow morning I will give you a book as a reward." Kenneth tried very hard, and at last he solved the puzzle quite correctly. How did the boy cut the figure and put the pieces together? The solution is on page 5202.

AMUSEMENT WITH A SLATE AND PENCIL

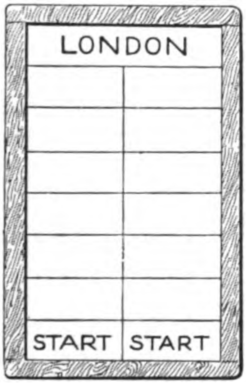
MUCH interest and amusement may be obtained on a rainy day, or at odd moments, with an ordinary slate and pencil, and some of the more familiar and attractive games played on a slate are given on this page.

FRENCH AND AMERICAN

A SPACE is ruled off at each end of the slate. These are called "fields," one being French and the other American. They are then filled with soldiers—that is, a number of plainly marked small circles. The battle begins by one of the players drawing his slate pencil rapidly from his own field right through that of the enemy. The number of soldiers that this line crosses are said to be killed. The second player then "fires his gun" in turn, and the one whose soldiers are all killed first loses the game. When drawing the line, each player ought to close his eyes.

UP TO LONDON

THIS game is for two players. From side to side of the slate a number of lines are drawn, leaving a space at the top and the bottom. A single line is drawn down the middle to divide the slate into two halves, and the players take separate sides. A counter is then placed at the starting-point, and the first player flicks it up the slate. If it stops between two lines, he draws there a tiny circle to represent a man's head. If, when his turn comes again, he succeeds in flicking the counter into the same space, he may add a body to the head; the third time means legs; the fourth time arms; and the fifth time a sword is drawn in his hands so as to reach across the central line and stop the enemy from drawing any men in the space it enters. Should the enemy have already begun to draw one, it must be rubbed out as "killed." The first player to get a man in *all* his spaces wins the game, and the quickest way to do this is to flick the counter into "London" every time; for once there means a head in every space; twice there means a body in every space; three times legs, and four times arms. If the counter flies off the slate, or rests on a line, the player scores nothing.

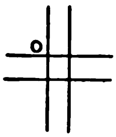


CAPPING VERSES

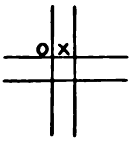
THE first player writes near the top of the slate a line of poetry, and, hiding it with a piece of paper, hands the slate to his neighbour, telling him only what the last word in the line was. The second player must add another line to rhyme with this word, then cover it over and pass the slate on. The third player starts a new rhyme for the fourth to "cap," and so on till the last player is reached. The poem is then read aloud.

NOUGHTS AND CROSSES

THIS game is played by two players. The slate is ruled with a double cross so as to form nine spaces. One player agrees to be "noughts," and the other "crosses." If "noughts" begins the game, he does so by drawing a little circle in any space he chooses. The "crosses" does the same with his own mark, and the first to get three of his marks in a line wins the game. This line may be from side to side, or up and down, or from corner to corner. Each player should place his mark so as to take up part of the line his rival is trying to make. The pictures show how the game might begin.



1



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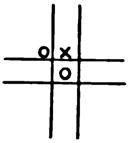

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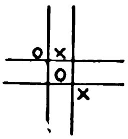
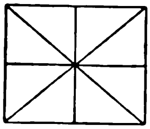


4

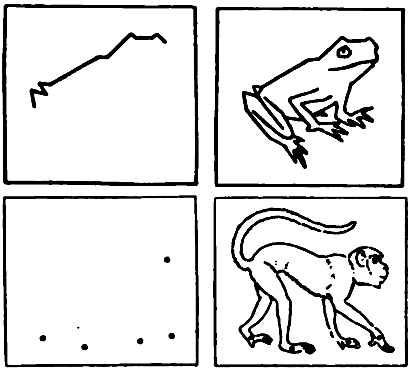
CORISCROWN

A FIGURE is drawn on the slate like this. Each of the two players has three counters, called "men." They take it in turns to place a man at any point they like, where the lines cross in the middle or touch the frame. The first player who is successful in getting his three men in a row is the winner of the game. It is a simple game, but gives a great deal of fun.



OUTLINES

THOUGH this can be played on slates, it is better to use paper and soft lead pencils. At a given word each one scribbles on his or her slate or paper a thick zigzag line, no matter what shape. The slates are then exchanged, and everyone must try to turn the line into part of a picture. Another way is to make five dots instead of a line—that is, one for the eye, two for the feet, and two for the hands. However awkwardly these dots may be placed, they must be worked into a drawing of some living creature. This is an amusing pastime, but requires skill and quickness.



KEEPING TORTOISES AS PETS

A TORTOISE needs less attention than any other pet that we can choose. Indeed, during the winter a tortoise needs no attention at all, for it goes away into a corner of the garden and sleeps until the coming of spring.

Tortoises can be bought for about a quarter each, and the best way to keep them is simply to put them in the garden and let them look after themselves. They may go out of sight for days, or even weeks, and we may think them lost, but they will generally turn up again.

It is supposed that tortoises are very stupid creatures, but they have been known to walk out of a flower-bed at the call of their owner, and although this is about the limit of their intelligence, it proves that they are responsive in some measure to attentions paid to them.

When we take a tortoise into the house, especially if it be hungry, we shall find no difficulty in persuading it to eat green food, such as lettuce and cabbage, and it may even be tempted to take some bread and milk.

SOLUTION OF THE GUARD'S PUZZLE ON PAGE 4997

THE guard at the king's hunting lodge was able so to arrange its numbers every night that there were always 9 soldiers on each side of the king's chamber. On the first night, when 4 soldiers went to the village, leaving only 20 behind, these disposed themselves as in the first diagram. On the second night, when 4 friends of the troopers came to the lodge, and there were thus 28 instead of 24 men present, they were distributed as in the second diagram. The third night 8 visitors entered the lodge, and these, with the 24 soldiers, made a total of 32 men to be arranged, so that 9, and only 9, should appear on each side of the house. They did so in the manner shown in the third diagram. On the fourth night, when 12 friends visited the lodge, the men distributed themselves as in the fourth diagram. Finally, on the fifth night, when 6 of the soldiers went to the village, leaving only 18 of their number behind, these 18 arranged themselves as shown in the fifth diagram. It will be seen that in every case, whether there were fewer or more than their correct number present, they were always able to arrange matters so that the king's order of nine men on each side was obeyed.

4	1	4
1		1
4	1	4

2	5	2
5		5
2	5	2

1	7	1
7		7
1	7	1

	9	
9		9
	9	

5		4
4		5

SOLUTIONS OF THE PUZZLE PICTURES ON PAGE 4999

ON page 4999 are ten sets of puzzle pictures, each set representing the name of a well-known plant. By putting together the names of the various objects that are shown in the pictures, we can discover what are the plants represented by the artist. The correct answers to the puzzles are as follows: 1, Cabbage; 2, Cauliflower; 3, Larkspur; 4, Apricot; 5, Orchids; 6, Hollyhocks; 7, Box; 8, Foxgloves; 9, Heartsease; 10, Gooseberries.

SOLUTIONS OF THE ANAGRAMS ON PAGE 5002

AT the end of page 5002, which gives a description of what an anagram is, and tells how anagrams may be formed, a number of words and phrases are given from which good anagrams can be made. The following are the solutions of these anagram puzzles, although it must be distinctly understood that these are not necessarily the only solutions: Catalogues will give: Got as a clue; Christianity gives: I cry that I sin; from Crocodile we get: Cool'd rice; and from Lawyers: Sly ware. Melodrama provides: Made moral; and from Midshipman comes: Mind his map; Parishioners will give: I hire parsons; Presbyterian gives: Best in prayer; and from Soldiers we have: Lo! I dress.

Some words are given on page 5002 in which the article before them is to be used in the anagram. The calceolaria gives: Eat coal, Charlie; The nightingale will make: High gale in tent; and from The turtle-dove we get: Eve, let truth do. The phrase Is pity love? provides, in reply to the question, the anagram: Positively; and from Poor house we have: O sour hope, which most will agree is a very appropriate anagram according to the popular idea of the poor house.

The following is the list of names given on page 5002, with its anagram after each: John Abernethy, Johnny the bear; Thomas Carlyle, Cry shame to all; Charles James Stuart, Charles, a just master; Henry Wadsworth Longfellow, Won half the New World's glory; Alfred Tennyson—Poet Laureate, Neat sonnet or deep tearful lay; Sir Robert Peel, Terrible prose; William Shakespeare, I ask me has Will a peer; Robert Southey, Robust hero yet; George Thompson, O go! the negro's M.P. Thomas Carlyle gives several other anagrams in addition to the one mentioned above. We have from the letters composing the great thinker's name the following: Mercy, lash a lot; A lot cry "Lash me"; A calm, holy rest; Clearly to sham. The examples given will show that the mental exercise obtained in thinking out anagrams is by no means trifling.

THE NEXT THINGS TO MAKE AND THINGS TO DO ARE ON PAGE 5195

THE NAMES OF THE FLOWERS

CONTINUED FROM 5056

We are now going to learn the meaning of the names of some beautiful flowers that grow in our gardens and in fields and hedgerows.

Anemone means "the wind flower," for *anemos* means "wind" in Greek. Anemones love exposed and windy places to grow in.

Aster is the Greek word for star.

Auricula is from the Latin word *auris*, an ear, and really means "a little ear." It is the name of a kind of primrose, called Bear's Ear, from the shape of its leaf.

Bachelor's Buttons are so called because they were carried about by young bachelors who were in love. If the flower faded quickly, it was a sign that their sweethearts did not love them; but if the flower did not fade, everything would go well with their love affairs.

Begonias are called after a botanist named Michel Begon, who died in 1710.

Bluebell, of Scotland, is probably so called from its bell-shaped flower. But perhaps it is the same as Harebell.

Buttercups were so called because people used to think that the cows which ate these flowers gave the best milk for making butter. But cows never eat buttercups if they can help it, so the people were wrong. But it is too pretty a name to give up.

Camellia is named after Camelli, the German botanist and missionary, who introduced it into Europe from the East. He died in 1690.

Campanula comes to us from the Italian word for "a bell," *campana*.

Carnation comes from *caro*, *carnis*, the Latin word for "flesh," because of its flesh colour. The same word comes in Carnival.

Chrysanthemum means "golden flower," from the Greek *chrysos*, gold, and *anthemon*, flower.

Clematis means "a twig," from the Greek *klema*, twig.

Convolvulus comes from the Latin *con-volvere*, to roll together, because it rolls up at sunset.

Cornflower is so called because it grows among corn.

Cowslip is probably "cow's leek."

Crane's Bill is the English of Geranium, given on page 5116.

Daffodil is really "d'Asphodèle," the French name of this flower. It was once called affadil. The "d" does not really belong to the word.

Dahlia is called after Andrew Dahl, a Swedish botanist, who discovered it in Mexico in 1784.

Daisy is the Anglo-Saxon *dæges-age*, 'the day's eye," because, like the convolvulus, it shuts its eye and goes to sleep at sunset.

Damask Rose was brought to England from Damascus by Dr. Linacre in 1540, so it was called Damascus rose, or Damask rose for short.

Dandelion is properly *dent de lion*, the French for "lion's tooth," so called because of a fancied resemblance of the leaves of this plant to the teeth of a lion.

Foxglove is really "folks' glove," meaning the glove of the good folks, as the fairies used to be called.

FUCHSIA is called after Leonard Fuchs, who brought it from Mexico about 1542. If we remember this, it will be easier to spell it.

GERANIUM comes from *geranos*, a crane, so called because it has seed-vessels like the bill of a crane, hence the English name of Crane's Bill.

GOLDYLOCKS is so called on account of its yellow flowers, which look like golden hair.

HAREBELL is properly the "Ayrbell," perhaps because it was first noticed at Ayr, in Scotland. It is also "the Bluebell of Scotland."

HAWTHORN is Anglo-Saxon for "hedge-thorn."

HELIOTROPE is from the Greek *helios*, sun, and *tropos*, turning. The flower is supposed always to turn towards the sun.

HOLLYHOCK is sometimes said to be "Holy Oak," but it is really the Anglo-Saxon *holi-hoc*, marsh mallow.

HONEYSUCKLE was so called from its fragrant flowers, from which honey is so easy to suck.

HYACINTH is called after Hyacinthus, a boy who was killed by Zephyr, the west wind, out of jealousy of Apollo. His blood became this flower, and the petals are inscribed with the boy's name. It is the same word as Jacinth.

IRIS is really the Greek word for "rainbow."

JONQUIL comes from the French *jonquilla* and the Latin *juncus*, meaning "a rush."

LAVENDER is from the Latin *lavare*, to wash, probably so called because it was laid with newly-washed clothes. It is really the same word as laundry.

LILAC is an Eastern name. It is called *leilak* in Turkey, and *lilaj* in Persia.

MARIGOLD was named after the Virgin Mary.

MAYFLOWER was so called because it appears in the month of May. Its other name is Arbutus.

MIGNONETTE is the diminutive of the French *mignon*, darling; so it means "the little darling."

MINT is called after Menthe, a girl who is said to have been transformed by her rival, Proserpina, into this plant.

NASTURTIUM comes from two Latin words meaning "twisted nose." It is easy to see which part of this popular flower looks like a twisted nose.

NOONTIDE or **NOONFLOWER** is so called because it closes its petals at noon.

ORCHID comes from the Greek *orchis*, a bag, because all the orchids have those curious little bags.

PANSY is the French *pensée*, thought; "pansies for thoughts," says Ophelia, in "Hamlet."

PASSION FLOWER has a beautiful history, connected with Christ's passion, or suffering. Its white tint represents purity; the blue tint, heaven; the leaf, the spear; the five anthers, the five wounds; the tendrils, the whips and cords; the column of the ovary, the pillar of the Cross; the stamens, the hammers; the three styles, the nails; the fleshy thorns inside the flowers, the crown of thorns; the calyx, the halo of glory around His head. It remains open for three days, and this is supposed to represent the three years of Christ's ministry on earth.

POLYANTHUS is a word taken from the Greek; *poly* means many, and *anthus* means flower.

PRIMROSE means the "first rose" or flower of spring, from the Latin *prima rosa*, first rose.

RHODODENDRON means "rose tree," from the Greek *rhodon*, rose, and *dendron*, tree.

SPEEDWELL is so called because its flowers fall off and fly away when it is gathered.

SPIREA, or **MEADOWSWEET**, is from the Greek *speira*, a coil.

THYME is from the Latin *thymus*, sacrifice; this plant was burned by the Romans on their altars on account of its fragrance.

TIGER FLOWER is so called because it is streaked like a tiger.

TULIP is *Thoulyban*, the Persian for turban. It looks like a turban, or head-dress.

VERBENA means a twig, from the Latin *verbena*, a twig.

VICTORIA REGIA was so called in honour of Queen Victoria. It was introduced into Britain from British Guiana soon after her accession.

WALLFLOWERS are very fond of old walls and ruined buildings.

WISTARIA is called after Caspar Wistar, a clever American.

WOODBINE, which is another name for the fragrant Honeysuckle, is really *wude-bend*, "bending around wood."

HIGHEST FACTOR AND LOWEST MULTIPLE

We know that a factor of a given number divides that number exactly. Thus, 2 is a factor of 180, since it is contained 90 times in 180. Similarly, 2 is a factor of 84, since it is contained 42 times in 84. Now, since 2 is a factor of both 180 and 84, it is called a *common* factor of these two numbers.

Suppose we find all the prime factors of these numbers, 180 and 84. We get

$$180 = 2 \times 2 \times 3 \times 3 \times 5$$
$$84 = 2 \times 2 \times 3 \times 7$$

This enables us to see that 2 is not the only common factor of 180 and 84. The numbers contain a second 2 and a 3, which are also common factors. Moreover, the result obtained by multiplying any of these common factors together will give a number which is also a common factor of 180 and 84. Thus, each of the numbers 2, 3, 4, 6, 12 is a common factor of the two given numbers.

The greatest of these, 12, formed by multiplying together *all* the prime *common* factors, is called the highest common factor of the two numbers. In exactly the same way we can pick out the common factors of more than two numbers. We see, then, that the highest common factor of two or more numbers is the greatest number which will divide into each of the given numbers, and leave no remainder.

The highest common factor is also called the greatest common measure, because it is the greatest number which measures the given numbers—that is, which is contained in the given numbers an exact number of times. For shortness, we use the letters H.C.F. and G.C.M. instead of writing the words.

Find the H.C.F. of 660, 1540, 3960.

Resolve each of the given numbers into prime factors in the way we have already learned. We find that

$$660 = 2 \times 2 \times 3 \times 5 \times 11$$
$$1540 = 2 \times 2 \times 5 \times 7 \times 11$$
$$3960 = 2 \times 2 \times 2 \times 3 \times 3 \times 5 \times 11$$

Picking out the common factors, we see that each number contains 2 twice, 5, and 11. Therefore

$$\text{H.C.F.} = 2 \times 2 \times 5 \times 11 = 220$$

Example

105 girls and 120 boys are to be divided into classes so that each class of girls contains the same number as each class of boys. If the classes are made as large as possible, how many will there be? Putting the numbers into factors, we get

$$105 = 3 \times 5 \times 7, \text{ and } 120 = 2 \times 2 \times 2 \times 3 \times 5$$

Their H.C.F. is therefore 3×5, or 15. Hence, this is the greatest number which can be put into each class. Therefore, the number of classes of girls equals the number of times 15 is contained in 105—that is, 7. Similarly, there will be 8 classes of boys. The number of classes altogether is 15.

When one number contains another number an exact number of times, the first number is called a *multiple* of the second. Thus, 180 contains 2 ninety times, so 180 is a multiple of 2.

Again, 180 contains 3 sixty times, so 180 is also a multiple of 3. Hence, 180 is called a common multiple of 2 and 3. But 180 is not the only common multiple of 2 and 3. We can think of any number of others, such as 6, 12, 18, 24. The *smallest* number which contains each of two or more given numbers an exact number of times is called their Least Common Multiple, or, for shortness, the L.C.M.

It is easy to write down the L.C.M. of two or more numbers if we first resolve them into prime factors. Take, for example, the numbers 180 and 84, of which we have already found the H.C.F. Expressed as factors, we had

$$180 = 2 \times 2 \times 3 \times 3 \times 5$$
$$84 = 2 \times 2 \times 3 \times 7$$

Now, since the L.C.M. is to contain 180, it must contain each of the factors 2, 2, 3, 3, 5. To contain 84 it must, in addition to these, contain the factor 7. Thus, the least number which contains both 180 and 84 is made up of the factors 2, 2, 3, 3, 5, 7, or we say the

$$\text{L.C.M.} = 2 \times 2 \times 3 \times 3 \times 5 \times 7 = 1260$$

In dealing with more than two numbers the work can be shortened, as in the following example. Find the L.C.M. of 15, 30, 24, 8, 18, 27.

First, if any of the given numbers will divide exactly into some other of the given numbers, we may leave it out of consideration.

$$\begin{array}{r|l} 2 & \cancel{15},\ 30,\ 24,\ \cancel{8},\ 18,\ 27 \\ \hline 3 & 15,\ 12,\ \cancel{9},\ 27 \\ \hline & 5,\ 4,\ 9 \\ \hline \end{array}$$

$$\text{L.C.M.} = 2 \times 3 \times 5 \times 4 \times 9 = 1080$$

For it is plain that a number which contains 24 will contain 8. Similarly, 15 may be neglected, since it is contained in 30. Next, we divide by a prime number which is a common factor of at least two of the remaining numbers. In the example we are considering we divide by 2, because it is a common factor of 30, 24, and 18. This gives us 15, 12, and 9, and we write the 27 down again with these numbers.

Now, of the four numbers 15, 12, 9, 27, one of them, 9, is contained in 27, so we may leave it out. Then we divide by 3, a common factor of the remaining numbers, and obtain 5, 4, 9. No two of these numbers have a common factor, so we need carry the work no further. What we have really done is to get the following factors for the different numbers:

$30 = 2 \times 3 \times 5$, $24 = 2 \times 3 \times 4$, $27 = 3 \times 9$

and, writing down the L.C.M. in the way we did before, we get

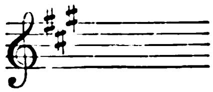
$$2 \times 3 \times 5 \times 4 \times 9$$

Thus, the L.C.M. consists of the product of all our divisors and all the numbers in the last line of our work.

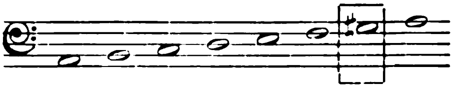
MUSIC

THE GOBLINS AND THE FAIRY LADDERS

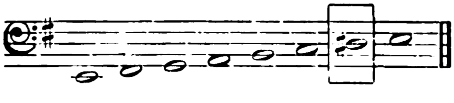
Now we are going to find out all about A and E minor, the tonic minors of A and E major. We all know the signature of A major:



As there are three sharps, we know at once that the signature of A minor will have none.



As usual, one of the little goblins has had to keep his eyes open, and appear just at the right moment, so that we may have that very-much-wanted semitone between the seventh and eighth degrees. The little goblin who has been so wide awake this time is little G♯. In the case of E major there are four sharps, so as E minor must have three sharps less, all are dropped except the very first, which is F♯, and we see that the signature of E minor is just like G major. We are going to hear much more about this presently, but now we will look at this harmonic minor scale of E:

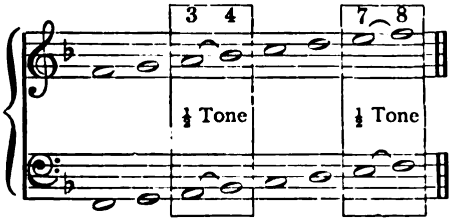


This time the watchful goblin is D♯, and later on the fairies are going to tell us how they reward these little people who are always ready to come the moment they are wanted.

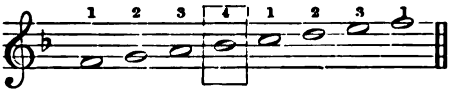
But the fairies are longing to tell us about ten more of their ladders, in which the little *flat* goblins play a very important part. The names of these ten ladders are F, B♭, E♭, A♭, D♭, and G♭ major; also F, B♭, E♭, and A♭ minor. We remember that when the little *sharp* goblins came to relieve the fairies, Goblin F♯ was the first to set the example, and that he took his place on the seventh rung of the ladder. Ever since then the fairy on every seventh step obtained her holiday, the little sharp goblin bearing her name taking her place. So, in the ladder starting on G, which we now know as the major scale of G, the seventh step is occupied by F♯; in the major scale of D, the seventh step is C♯, and so on.

Now, we are to find that the little flat goblins thought the fairies on the seventh step had had their turn, and a meeting was held in the fairyland of music, at which the little *flats* declared their intention of sending the fairies on the *fourth degree* of the scale to play with the breezes and laugh with the sun. So, in the scale of F, we find the fourth degree is B♭, because little Fairy B has run away to enjoy herself.

It was so wise of little B♭ to arrive at the right moment, for it gives us the necessary step of a semitone between the third and fourth degrees. At the top of the next page we see a picture of the scale, with the little goblin's banner hung out on the third line on the treble staff and on the second line on the bass staff. Here we see the fairy rules are kept, and we have the semitones between the third and fourth and the seventh and eighth degrees.

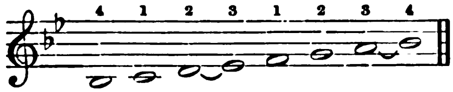


To-day the fairies only want us to think of the fingering in the right hand, because they believe in thinking well of one thing at a time. This is the new rule for these ten scales: *The fourth finger of the right hand must belong only to B♭.* So once more we will look at our scale of F, considering the fingering we want in the right hand:

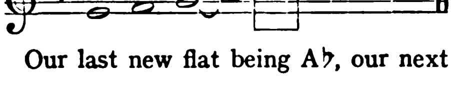


One other thing was declared at the goblin meeting held in the fairyland of music, and it was this: That the little goblin who released the fairy on the fourth step of the ladder should be the one chosen to begin the next scale, so, as little Goblin B♭ took up his part on the fourth degree of the scale of F, the next scale is to be his possession, and we know it as the major scale of B♭.

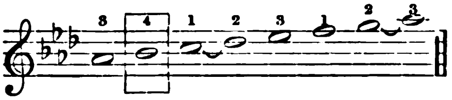
When we come to the fourth note of the scale of B♭, we know that Fairy E is to have her game of play, kind Goblin E♭ having taken her place, and the sign of the key is just this:



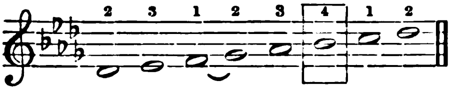
As little E♭ holds the fourth degree of our new fairy ladder, it follows that he is the chosen one to give his name to the scale that follows, so we next find ourselves with a picture of the major scale of E♭. Little A is the one to join the fairy frolic to-day. The scale of E♭ major has three flats—B♭, E♭, A♭, and again we remember that the fourth finger of the *right* hand belongs to B♭.



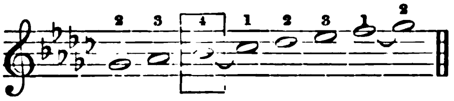
Our last new flat being A♭, our next scale begins on that note—A♭; and, as D is the fourth letter after A, it follows that D is the next little fairy to be kissed by the sun. Little Goblin D♭ takes her place, so the key-signature is B♭, E♭, A♭, D♭. We can easily remember it, because B, E, A, D spells bead. Here are the goblins' flags placed in the treble clef, and again we find that the fourth finger of the right hand belongs to B♭:



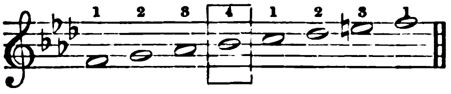
It is quite easy for us now to find our new scales and our new flat goblins. D♭ was our last new flat, so D is our new scale, and the fourth fairy, G, runs away, only to leave us with Goblin G♭. So now five little fairies are playing together—B, E, A, D, G, and five little goblins are hanging out their flags. And for yet the fifth time the fourth finger on our right hand still remains faithful to B♭:



One more major scale of this group remains—the scale of G♭ major. The new flat will be C♭, so the signature contains six flats:



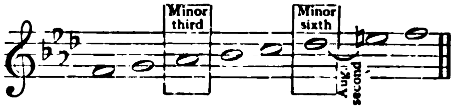
The tonic minors of F, B♭, E♭, and A♭ also keep the fourth-finger rule:



The fairies want us to notice the key-signature, and they also ask us to remember our old rule—that the tonic minor must have three sharps less, or three flats more, than its tonic major. This is why we have four flats—B♭, E♭, A♭, D♭, because F major has only one—B♭. This key-signature is exactly the same as the key-signature of A♭ major, and it is this which brings us to the fairies' new point. We can always find the signature of a minor key by going to its relative major, and the relative major is that major scale which lies exactly a minor third above its

relative minor. So the relative major to F minor is A♭ major, because F to A♭ makes a minor third, so F minor and A♭ major have the same signature.

The little fairy on the seventh degree has to come back at the last moment, so that we may have the semitone needed between the seventh and eighth degrees, and she hangs up her return card ♮ on the staff. It is this "return card" that shows us whether the signature belongs to the major scale or its relative minor. But we walk along our ladder



and directly we see the return card we know the signature belongs to F minor, because Fairy E has nothing to do in the scale of A♭ major. In F minor she gives us that little step of a semitone which we so greatly need.

FRENCH

LE LOUP DANS LA NUIT

The English version of this story is given on page 1054.

Il y a près de cent ans, un avocat français, le Baron de Monthyon, légua une grosse somme d'argent pour la fondation d'un prix annuel à donner " à la personne, en France, qui pendant l'année, aurait commis les actions plus vertueuses."

La liste de ces prix constitue une série merveilleuse de nobles actes ; mais il est douteux qu'elle contienne une histoire plus héroïque que celle de Madeleine Saunier, une pauvre jeune fille, dont l'âme était toute de charité, et qui s'appliqua à aider autrui d'une façon admirable. Une pauvre veuve aveugle, habitait, avec sa fille souffrante, à trois kilomètres de sa demeure, et pendant quinze ans, Madeleine ne manqua jamais d'aller, à pied, chez elles, de les nourrir, de mettre leur maison en ordre et de leur donner assez de joie, pour attendre son retour, le lendemain.

A une distance égale, mais dans une autre direction, vivait, dans une maisonnette isolée, une pauvre fille atteinte de la lèpre, et abandonnée de ses amis. Pendant dix-huit mois, Madeleine la visita deux fois par jour, pour lui donner le peu de nourriture qu'elle pouvait manger et pour panser ses plaies atroces, jusqu'au jour où la pauvre lépreuse mourut entre ses bras.

En 1840, Madeleine fut presque noyée en tâchant de traverser une rivière grossie par les pluies, qui la séparait d'une personne qu'elle visitait journellement. Quand on lui reprocha sa témérité, elle répondit simplement : " Je n'ai pas pu m'en empêcher ; ne pouvant aller la visiter hier, j'ai senti que je devais aller la voir aujourd'hui."

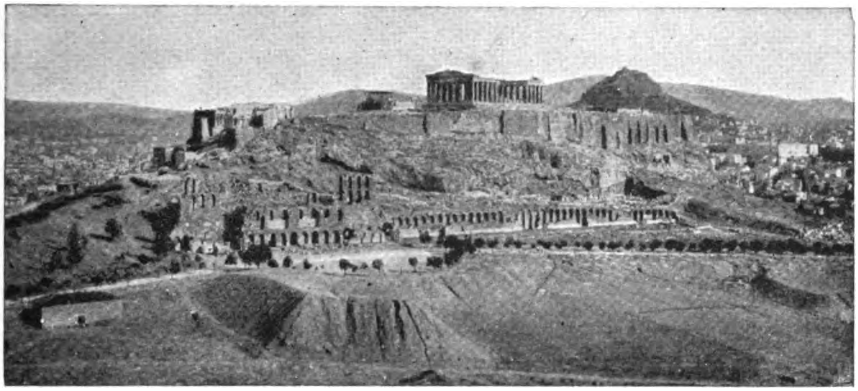
Pendant un rigoureux hiver, elle eut une dangereuse aventure. Elle soignait une mourante, appelée Mancel, qui habitait au flanc d'une colline dans une cabane qui ressemblait davantage à la tanière d'une bête sauvage qu'à la demeure d'un être humain. Vers la fin d'une longue nuit, Madeleine avait allumé quelques brindilles vertes, pour essayer de remédier au froid intense, lorsque la porte vermoulue qui n'était fermée que par une pierre sur le plancher, fut poussée du dehors, et elle vit un loup prêt à bondir dans la chambre.

Elle sauta contre la porte et la tint solidement, s'aidant de tout ce qu'elle pouvait atteindre pour la maintenir fermée, tandis que l'animal se ruait contre les planches. Et elle criait de toutes ses forces, dans l'espoir d'éloigner le loup en l'effrayant. Mais durant tout le reste de cette nuit terrible, elle eut à maintenir la porte contre lui.

Peu de temps après, la malade mourut, et Madeleine craignit que le loup ne revînt. Elle alla donc à une maison voisine et demanda qu'on gardât le corps jusqu'à l'enterrement. Les paysans y consentirent et Madeleine retourna, dans la neige, à la cabane de la colline, à travers la région déserte et hantée par les loups.

Elle prit le cadavre sur ses épaules et, pliant sous le fardeau, l'amena à la demeure des paysans, où elle tomba à genoux et remercia Dieu de l'avoir sauvée. Le lendemain, les traces du loup dans la neige prouvèrent qu'il avait rôdé autour de la cabane pendant la nuit, et la porte brisée démontra qu'il avait réussi à y pénétrer.

THE NEXT SCHOOL LESSONS ARE ON PAGE 5233



The glory of ancient Athens, once the finest city in the world, is represented to-day by a pile of noble ruins, and in this view we see the famous Acropolis, the hill on which many temples stood.

THE GLORY THAT WAS GREECE

CONTINUED FROM 5066

THEMISTOCLES

WHEN we turn to the map of the blue, sunshiny Mediterranean Sea, we notice that the most easterly of its three southward-pointing peninsulas is, in fact, a double peninsula. The southern one, called in ancient times the Peloponnesus, is shaped like a mulberry leaf and hangs by its stalk—the Isthmus of Corinth—from the northern one, springing directly from the mass of the continent. Successive ramparts of mountains shut off the Peloponnesus and a strip of country the other side of the isthmus from the rest of Europe.

But this whole country of Greece, which is about the size of Illinois, lies open to the enticing sea of many islands, with its fine harbours and easy sailing. This sea was known in old days as the Ægean Sea; the lovely islands themselves are like stepping-stones between Greece and the opposite coasts of Asia Minor.

We read in the story of Persia, that begins on page 5057, with what gallantry and determination the Greeks defended their northern mountain walls during the world-struggle between the East and West in the fifth century before Christ. We know, too, at that time, how open to attack were the sea-washed coasts, and how invaluable were the fine harbours, such as Salamis. But before throwing ourselves again into those thrilling times, let us wander back through the centuries to catch a few glimpses of the earlier state of the country. We want to see the beginnings of a race that played so brave a part in the day of its tremendous trial.

A poor, blind old man, we are told, though some would have it that he never existed, wandered round the coasts of the Ægean Sea, some three or four hundred years before the time when the whole land was in a turmoil, fitting out ships and gathering soldiers to resist the Persians. This old man, Homer, like other minstrels before him, sang or recited, as he went, the grandest songs of adventure and fighting that the world has ever heard. Homer nearly 3,000 years ago was handing down, as he sang, the history, clothed in a poetic dress, of times perhaps three or four centuries earlier than his own.

We read some of Homer's stories on pages 67 and 185 of this book, and in the British Museum there are manuscripts, 2,000 years old, of the two great poems—the "Iliad," or the taking of Ilium, or Troy, and the "Odyssey," which tells of the wonderful wanderings of the great hero, Odysseus.

Once people thought that everything in the "Iliad" and "Odyssey" was fairy-tale, because there is so much in them that can be nothing but beautiful make-believe. The spade of the explorer, however, has shown, within the last fifty years, how much truth and history lie hidden in Homer's songs. We know now that brilliant memories of times gone by are enshrined in the legends. Those times of which Homer sang had been wiped out by waves of newcomers and years of disturbance and struggle in the land.

THE PALACES OF THE GREEK HEROES THAT WERE HIDDEN FOR CENTURIES

In the north-west corner of Asia Minor, near the Hellespont, scholars believe they have found the ruins of Troy, or Ilium, itself, and in Mycene, in the Peloponnesus, they have unearthed a palace with golden treasure, like the home of Agamemnon, the leader of the Achæans who fought against Troy. Grand indeed is it to have actual touch with those far-off stirring times, and most deeply interesting are the remains to be seen in museums of pictures cut in roller seals or painted on plaster, as well as wonderful treasures of gold, such as ornaments and cups.

How long this civilisation had lasted is not yet known, but on many Mediterranean sites have been found wide-spread traces of it. In the beautiful island of Crete, for instance, stood a marvellous palace, three storeys high, as large as a town, belonging to times still earlier than those of Mycene and Troy. The story of its exploration is one of the most entrancing ever told, especially as it unravels one of the wonderful old Greek stories, that of the monster Minotaur, and the labyrinth, or palace with winding passages, in which he lived.

THE MEN WHO SETTLED ON A STRIP OF LAND AND BECAME DARING SAILORS

It was during the years when this old civilisation was flourishing round the Ægean Sea that many families of people were migrating westwards from their homes on the lower basin of the Euphrates, where life was so full and busy and there was constant need for more room. One of these families, known as the Phœnicians, settled, as Abraham of the same race had done long before, in Syria, the country between Asia Minor and Egypt. These Phœnicians occupied a narrow strip of land, about 200 miles long by about 20 broad, between the sea and the mountains of Syria, where grew the famous cedars of Lebanon. Energetic and clever people they were, and they became daring sailors and most successful traders. Placed midway between the East and West, they became the merchant carriers of the known world; the productions of the old empires on the Nile and the Euphrates passed through their hands, and were taken in their little ships wherever they could find a market.

Farther and farther afield they pushed their way, building forts to protect their trade, much as the Dutch, French, and British did thousands of years later. They were miners and metal-workers, too, and it was chiefly in the quest for silver that they passed the Pillars of Hercules and founded Gades, or Cadiz, facing the broad Atlantic. It was the rumour that tin was to be found in distant islands that led them to pass the Bay of Biscay and land in Cornwall. The Phœnicians discovered Britain.

HOW THE PHŒNICIANS BECAME THE MERCHANTS OF THE WORLD

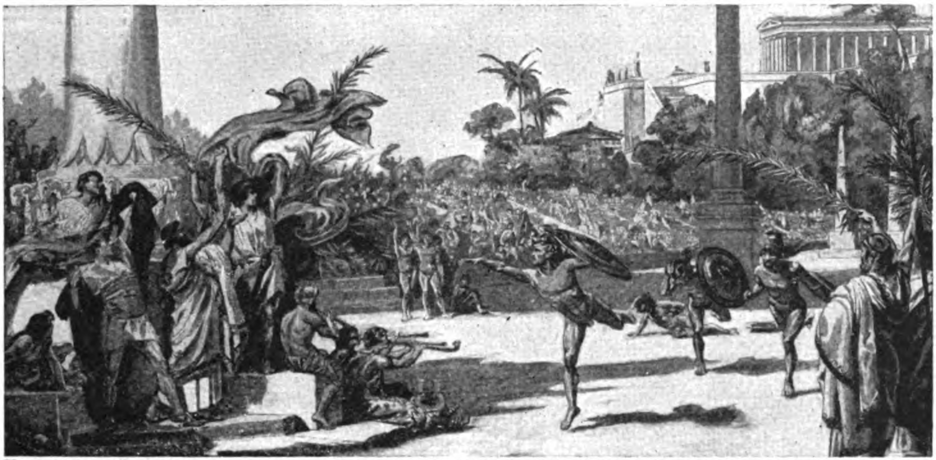
These people are mentioned in the "Iliad" as famous workers in metal; in the "Odyssey," they are spoken of chiefly as daring sailors and pirates.

Like the British in later days, they saw the advantages of Malta, and Cyprus, the copper island, for harbours and footholds, but their chief colony, which flourished exceedingly after the great days of Phœnicia had gone by, was Carthage, on the north coast of Africa, nearest to Sicily. So strong and rich did this colony become that it founded other colonies, such as New Carthage, in Spain, and contested long and nobly with the Greeks and Romans in later days.

And all the time that the Phœnicians were facing the waves in storm and sunshine, buying and selling everywhere, from the very old Greek cities and from Britain, and founding colonies, they were also making great wealth from a beautiful purple dye obtained from a little shell-fish gathered on their shores. It is astonishing indeed how much life and work had its home on that narrow strip of shore, especially round the two great cities Sidon and Tyre, both of which had

THE FAMOUS GAMES OF THE GREEKS

A leading feature of Greek life was the great Olympic festival, held every fourth year at Olympia, at which athletes and musicians and poets and artists were present from all parts of Greece and contended for the simple prizes, that took the form of olive crowns. In this picture we see a victorious poet being carried in triumph.



Here we see the end of one of the great foot races at Olympia. These Olympic games were no mere idle sport. They were dedicated to Zeus, and represented all that the Greeks held to be most worthy in human life. **They were a part of the religion of Greece, and the sternest means were taken to prevent anything like cheating.**

So sacred were the Olympic games considered by all the different Greek states, that if they were at war, the fighting was suspended during the period of the festival, and only resumed after the competitors had returned to their homes. Of all the Greek states none encouraged athletics more than Sparta, whose male citizens **were rigorously trained by the State from the age of seven. Here we see the famous Spartan gymnasium.**

afterwards such tragic histories. The name Tyre brings to mind its king, Hiram, who helped David and his son Solomon so much in the building of the great Temple at Jerusalem, sending them cedar and bronze and cunning workmen, as we read in the Bible.

While the Phœnicians were thus at the height of their power, great waves of people had ever been rolling on from the east, round the Black Sea, pushing forward and southward the tribes in front of them. And so it happened that, some years after the fall of Troy, an uprising of the states round the north-west of the Ægean Sea took place on the arrival of new tribes seeking new homes.

In the years of fighting and trouble which followed, the old high civilisation was lost, and when at last things settled down, we find Greece—or Hellas, as the people themselves called it—cut up into small states, mostly shut in by surrounding mountains, but open to the sea.

THE QUARRELS THAT PREVENTED THE GREEKS BUILDING A GREAT EMPIRE

All were fiercely independent, and though the Hellenes were all of the same race, they were very different in nature. We know but little of the long struggles the newcomers had with the old inhabitants, the very early Greeks, or of the difficulties that arose as they mingled with them, and overflowed to the islands of the Ægean and the coasts of Asia Minor beyond.

The three chief tribes of the Hellenes were the Ionians, the Dorians, and the Æolians. All through the history of the rise and fall of Hellas, or Greece, these people never united under one ruler, as did the Anglo-Saxon kingdoms. Incessant and bitter to the very end were the quarrels and jealousies among all the states founded by them.

The chief Ionian state was Athens, with the country round called Attica, that little peninsula which lies north-east of Corinth. The Ionians soon spread out over the middle islands of the Ægean Sea to Asia Minor, where they founded the cities afterwards so famous as Smyrna and Ephesus. In the Peloponnesus was Sparta, the chief Dorian state; and it also soon formed settlements, chiefly in Crete, Rhodes, and Cyprus. To the west of Attica lay Bœotia, with its capital, Thebes, settled eventually by the Æolian family, neither so clever as the Ionians nor so brilliant in war as the Dorians, but more steady and persevering than either. They expanded to the north of the Ionians.

THE FALL OF TYRE AND THE RISE OF GREECE AS A SEA-POWER

The early settlement of the states is a long and intricate story, with many changes of government, and much fighting amongst themselves. Still, shut off in the peninsula by their triple rampart of mountains to the north, they had some centuries free from foreign invasion in which to develop according to their natures and the opportunities of their country.

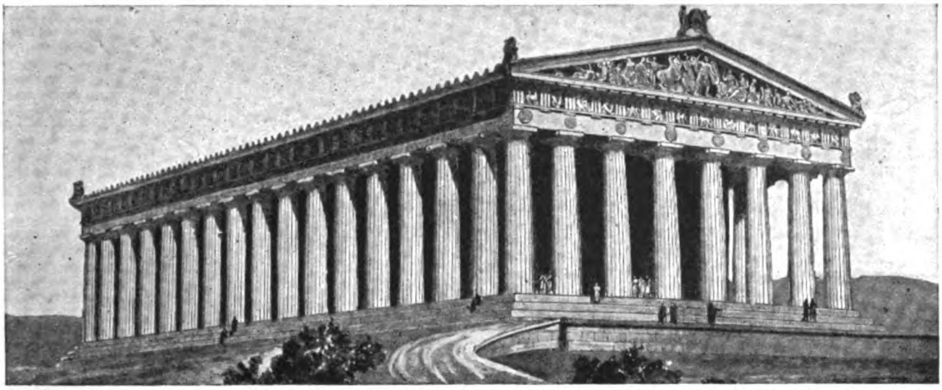
The brilliant period of Phœnicia did not last many centuries. Nebuchadnezzar took Tyre in the sixth century before Christ, and the Persians annexed the whole district soon after, glad enough to get the use of the great fleets of ships for their wars and commerce.

As the sea-power of the Phœnicians went down, that of the Greeks rose, till they, in their turn, became masters of the Mediterranean, trading and exploring everywhere and founding colonies on a grand scale. Besides those to the east were the important ones in the south of Italy and Sicily, which came in time to be called Greater Hellas or Greece. From the colony at Marseilles, then called Massilia, three centuries before Julius Cæsar crossed the English Channel, sailed the ardent old sailor and geographer, Pytheas, to the distant island of Britain, then so lonely and savage. We read in the story of Egypt, that begins on page 4779, how much that country was influenced in its later times by Greek trade and Greek learning, when at last the persevering merchants had managed to gain a footing in the China of the Mediterranean.

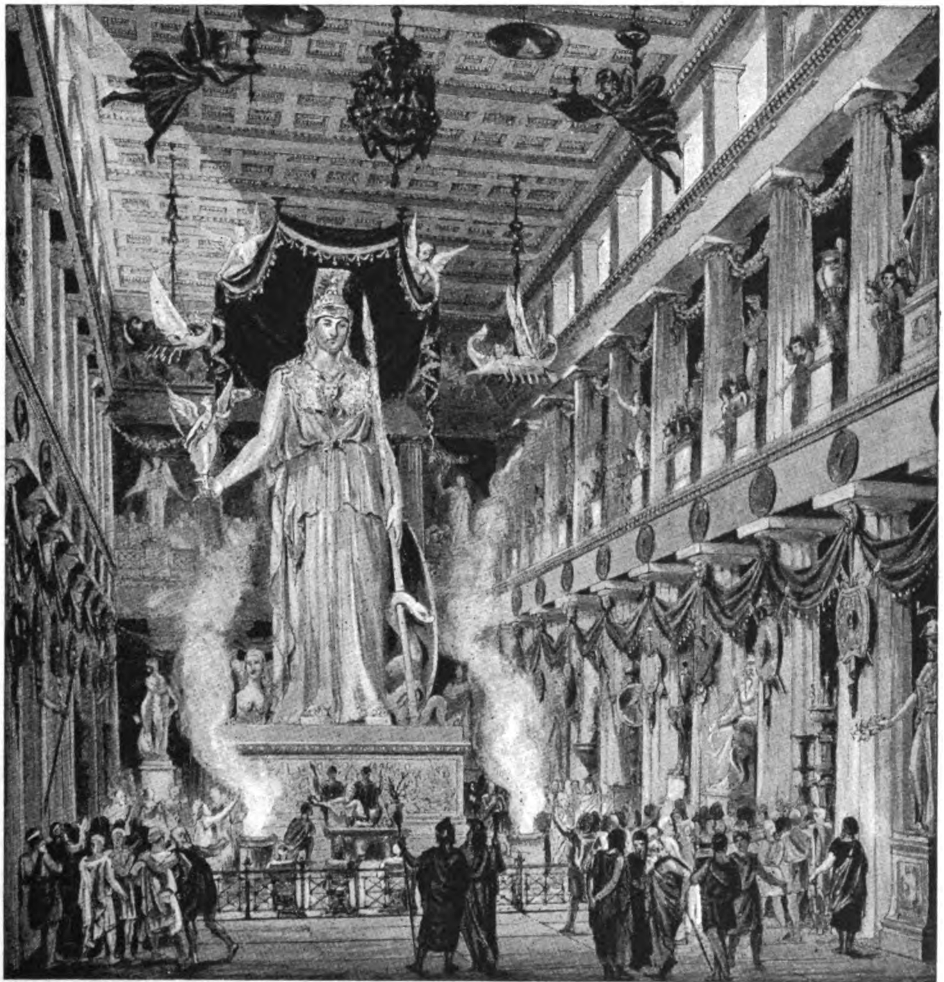
THE IRON LAWS OF SPARTA THAT TREATED MEN AS IF THEY WERE MACHINES

It was in the same century that Homer is believed to have lived that the famous laws of Sparta were settled by Lycurgus. These iron laws arranged the lives of Spartans from birth to death as if they were parts of a machine. Baby boys were not allowed to live at all if they were not strong, and those who passed the judges were taken from their mothers when seven years old to be brought up by the State, so as to

THE FINEST BUILDING THE WORLD HAS SEEN



The Acropolis was the glory of ancient Athens, and the Parthenon, that crowned its heights, was the glory of the **Acropolis. It has been called the world's finest building on the world's finest site, and by common consent it is the most beautiful building that the world has ever seen. It is now in ruins, but here we see it in its glory.**



The Parthenon was built as a temple of the goddess Athena Parthenos, and, inside as well as out, was beautifully adorned with sculptures. But the greatest treasure of the Parthenon and of all Athens was the colossal statue of the goddess Athena in ivory and gold. It was the work of Phidias, one of the greatest Greek sculptors.

turn out fine soldiers. They lived in barracks in the hardest and simplest way possible, and were made to endure hunger, fatigue, and even thrashing. To this day we say of anyone who endures discomfort and suffering without complaining that he is a Spartan, and a proverb we often use, " Hunger is the best sauce," comes down to us from a Spartan cook who was speaking of the horrid black broth these boys had to take.

We read on page 1301, in the story of the pass of Thermopylæ, several hundred years after Lycurgus framed his laws, what sort of soldiers this military training turned out.

The Ionian Athenians developed on very different lines. They had many difficulties and troubles to endure before their laws and arrangements settled down into one of the most perfect systems of government by the people ever known. Their great reforming lawgiver was Solon, one of the wise men of Greece, whom we read about on page 1301. He lived about one hundred years before the Persian wars began.

THE POETS AND HISTORIANS OF ATHENS WHO WROTE FOR ALL TIME

About this time, too, the great fable-writer, Æsop, is said to have lived. We have many of his delightful stories in other parts of this book.

The greater part of the wonderful influence that Greece has had on the world is due to the work, the writings, and the manner of life of the little state-city of Athens during a few hundred years.

Happily, we possess a great wealth of illustration to show us what manner of men these Greeks were, especially the Athenians. Many of their thoughtful writings, histories, plays, poems, and speeches have been handed down through the centuries by scholars who have loved them and studied them. Some of the old manuscripts of these are next to the copies of the "Iliad" and "Odyssey" in the British Museum. But besides these untold treasures, much beautiful handwork has been rescued and dug up in Greece and surrounding countries, and brought to museums where they can be set up and studied.

It was the work of the Greek mind and Greek hands that began nearly everything great and beautiful that later days have carried on. As we pass through about twenty rooms in the British Museum full of their masterpieces—the vases, the coins and gems, the fragments of marvellous temples and life-like sculpture—we feel we are indeed in noble company.

THE PICTURES ON THE VASES THAT SHOW US THE LIFE OF THE OLD GREEKS

From the earliest days the Greeks made fine pottery, and ornamented it with designs and pictures. The early, rather stiff work of the eighth and seventh centuries before Christ gave way to the interesting subjects chosen by the artists of the sixth and fifth centuries. First and foremost, we must notice the graceful and varied shapes of the vases, according to the use for which they were designed. Often the potter-artist signs his name on the vase, as well as the picture-artist. The subjects chosen for these are chiefly scenes from the old stories in which the religion and history of the country are so entwined, and scenes from daily life, especially in the fifth and fourth centuries before Christ, when vase-painting rose to its greatest perfection. After these times it declined.

Helped by the beauty of the clear skies, wooded hills, and dancing streams of Greece, the bright imaginations of its old inhabitants put life into everything around them. The dancing waves became merry maidens—even we talk of the foam as white horses—fairies and nymphs dwelt in every shady wood, in the sparkling water. We can find pictures on the vases to help us to understand a great many of the fanciful ideas in Greek religion. There is Zeus, the father of the gods, with his thunderbolts ; the goddess of agriculture, Demeter, sending a messenger to spread the knowledge of wheat-growing over the earth, or standing as the sad mother saying farewell to her dearly loved daughter at the moment when the dark and gloomy Hades drives her away in his chariot to the wintry underworld.

LITTLE PICTURES OF BOYS AND GIRLS OF LONG AGO

Those illustrating daily life are equally delightful. The babies playing with carts and make-believe meals might be seen in any nursery to-day, and the little girls at their dancing lessons, the boys with more serious work, but not nearly so attentive as the girls, seem just as real to us as to the artists who drew them.

SCENES IN THE GREECE OF LONG AGO

Homer, the blind poet of Greece, and perhaps the greatest poet of all time, is shown in this picture singing one of his famous epics. His poems, as Mr. Gladstone has said, differ from all other known poems, and are in themselves really an encyclopædia of life and knowledge.

When the enemies of Aristides the Just induced the people to banish him from Athens, an ignorant peasant, wishing to vote for his banishment, and not knowing the leader, came and asked him to write the name Aristides on his voting-shell. This Aristides readily did.

Xerxes the Persian came to conquer Greece with a huge fleet of 1,200 large vessels and 3,000 smaller ones, while the Greeks had only 366 vessels. So confident was Xerxes of crushing the Greek fleet at Salamis that he sat on a lofty throne to see their defeat; but the Persians were completely beaten. This battle took place in the year 480 before Christ, a few days after the famous fight at Thermopylæ. In this picture, by Ferdinand Cormon, we see how enthusiastically the Greek victors were welcomed by their friends after the battle.

On other vases we can see how the potter made his pots; how the girls spun the soft hanging material of which they made their pretty, simple garments; how they gossiped together as girls do now, while bringing water from the well. There are many entertainment scenes, too, where the guests are reclining on couches.

The beautiful pictures of ships recall the blue Mediterranean and the naval glory of Greece; and the scene of olive-gatherers reminds us of the numbers of olive-trees round Athens, which gave the valuable oil so much sought after.

Some of the larger vases were prizes for sports and games, won long ago and buried with the proud winner when he died. Often, however, the prize in the games was simply a wreath of leaves; this surprised Xerxes very much. At Athens the prize was one of the vases with some of the precious olive oil in it.

HOW ATHENS ROSE IN GLORY FROM THE ASHES OF DESOLATION

And this leads us to the city of Athens, and its hill called the Acropolis, where the Persians destroyed the sacred buildings and slew the few hundred people who stayed behind when the rest fled to the ships. There is a blackened layer to be seen to-day when digging is done to a certain depth on the Acropolis—the relics of the ruin wrought by the Persians.

Soon after this war was ended, the Athenians, helped by three of their great men, Pericles the ruler, Ictinos the architect, and Phidias the sculptor, set to work with extraordinary energy to restore the mischief done by the enemy. It was a grand opportunity, such as Sir Christopher Wren had after the Fire of London, and by degrees temples, such as the world had never seen before, rose up on the Acropolis.

There is a model of this flat-topped hill of the city, as well as one of the most wonderful of the temples upon it, in the British Museum, together with many of the sculptures and adornments of the Parthenon. This building for 1,000 years remained a temple of the goddess Athena Parthenos, and that is how it received the name of the Parthenon. For another 1,000 years it was used as a Christian church, and then as a Turkish mosque. Now it is one of the grandest ruins of the world, and the sculptures are studied by all who wish to understand the most beautiful ways of expressing the human form. As we gaze in wonder and admiration at the glorious figures of the gods and goddesses, we reflect what models Phidias must have had before his eyes.

THE WONDERFUL TREASURES OF ANCIENT GREECE THAT WE CAN SEE TO-DAY

The various details of the frieze which runs round the outside of the temple give a glowing picture of the grand procession in which all Athens took part in the centuries of its greatness. The winners of the vases were there, as well as the gentle, modest maidens who had embroidered a beautiful robe for the goddess. There were, also, the splendid prancing horses, the musicians, the bearers of offerings, and the gentle animals for sacrifice.

There were three statues of Athena on the Acropolis—a little old wooden one, supposed to have fallen from heaven; an enormous bronze one, seventy feet high, that the sailors could see and salute at sea, five miles off; and a gorgeous gold and ivory one, forty feet high, in the Parthenon, which is shown on page 5125. Then there was the equally large statue of Athena's father, Zeus, in the temple at Olympia in the Peloponnesus. It was at Olympia that the great national games were held, the prizes in which were so eagerly competed for.

The British Museum has remains of many other temples and sculptures, besides relics of bronze, and the exquisitely fine portraits on the coins and engraved gems. The work on the gems and the jewellery of the most notable period is so wonderful that its beauty is seen fully only by the aid of a magnifying glass.

WHERE WE CAN SEE THE TOYS OF THE CHILDREN OF ANCIENT GREECE

But perhaps the collection that makes us feel like intimate friends with the Athenians is that of the little figures in terra-cotta, called after the place where many were found, the Tanagra figures. Such pretty and graceful girls in life-like attitudes, playing games, reading, chatting, skipping, all so natural and homelike, we can scarcely realise they lived more than 2,000 years ago, and spoke Greek, not English. Anyway, we feel we could understand one of the babies when he wakes in the arms of his good-natured-looking nurse. He must have had toys to play with like those in the room of Greek and Roman Life at the British Museum, where there are rattles, beside dolls with movable legs and arms, and marbles, and lesson-books for his elder sisters and brothers.

THE STRUGGLES OF THE GREEKS TO SAVE THEIR LAND FROM PERSIA

Not far from the toys are sling-bolts and other weapons from the field of Marathon. Often as one may read over again the story of the struggle, the wonder and the glory of it are ever fresh. We read the story of the devoted runner, Pheidippides, and his Marathon race on page 1803.

Then, again, there is the story of the gallant little town of Platæa, which sent its whole army of 1,000 men to face, with Athens, the hosts of the Persians, while other states were sending all sorts of excuses for non-appearance. Sparta could not leave the yearly games. This action of the Platæans has always been looked upon as one of the most heroic in Greek history, for what hope could they have had of winning ?

While Xerxes was getting ready for the third invasion of Greece, there were busy times in the ports of Athens. Themistocles, one of the great men of the period, was doing his best to make Athens a great naval state by building ships with all the money that could be raised. We read on page 1302 how useful these ships were after Thermopylæ was forced and Athens burnt. They saved Greece at Salamis, defeating the great and powerful Persian fleet in the narrow waters before the eyes of the enraged Xerxes.

HOW THE GREAT ARMY OF XERXES WAS DRIVEN OUT OF GREECE

It is said that on the very same day that the battle of Salamis was fought, the Greeks who had settled in Sicily totally defeated the Phœnicians of Carthage, who had landed in their country. There were two other battles, both on the same day, in the following year. They were, firstly, the momentous battle of Platæa, when Greece gathered the largest force she had ever mustered to meet the picked men of the Persian army that Xerxes had left behind, and, secondly, the sea-fight across the Ægean at Mycale, between Ephesus and Miletus. Both resulted in victories for the Greeks ; Xerxes troubled them no more.

If only the states could have united into one nation at this time, they would have had a great future. By defeating and driving away the forces of the mighty Persian Empire they had raised themselves from a collection of little states, with an independence depending on their position, to a place in the world as brave freemen, among nations who were the slaves of despots. But union was never farther off.

The Spartans and Athenians remained sworn enemies, first one and then another gaining the lead. In the middle of the fifth century, when Pericles was rebuilding Athens and Herodotus was travelling and writing, Athens raised its power to a great height, but in so doing made bitter enemies of Sparta and Bœotia, and when these attacked her, little by little her possessions melted away. With her loss of power all hope of Greek unity was gone. Many were the battles and sieges, revolts and truces, in those days.

THE QUARRELS OF THE GREEK STATES AND THE DOWNFALL OF ATHENS

While Athens was on the down-grade, a great expedition was planned to retrieve her fortunes in Sicily, where Dorian settlers had grown very rich in Syracuse. But it failed utterly, and left Athens weaker than ever, with her best sailors and soldiers sacrificed in the ruin that fell upon her. After a few years she revived, and war with the Spartans now raged round the Hellespont. This time the Athenians were successful, and Byzantium passed to them from the Spartans ; but the end of the war between the rivals was brought about by the capture of Athens, after famine, during a long siege, had done its work. A miserable state of affairs followed.

It was now that the expedition of the 10,000 Greeks made its adventurous way into the heart of Persia, and then back by way of the Black Sea, as we read on page 5076. When their leader, Xenophon, reached Athens, he was deeply grieved to find that his friend and teacher, the great and wise Socrates, had been condemned to death. Socrates loved searching after truth, and had a masterly way of cross-questioning his hearers that brought home to them their ignorance. His pupil, Plato, was an equally noble man, whose teaching will never die.

Just below the Acropolis was the large open-air theatre where the prize plays of the great writers of Greece were performed to enraptured and critical audiences during the centuries so torn with wars and jealousies. To-day, 2,000 years after, we, too, are moved to tears and laughter when we see these great plays of the Greeks acted.

THE DANGER THAT THREATENED THE GREEK STATES FROM THE NORTH

The Spartans, who had a turn of the chief power for a while, were greatly hated for their selfishness and hardness, and so the time came when they, too, lost their fine position and their navy; and then Thebes had some continued successes under their great leader, Epaminondas. When he died it was not the long-dreaded Persians who were now to be feared as possible conquerors of the disunited states of Greece. The danger came from an unexpected quarter, from Macedonia, on the northern and western shores of the Ægean Sea.

The Macedonians were in race a mixture of the Greeks and the less civilised tribes whom they called barbarians. They had long had their own kings, but little heed was paid to them by their southern neighbours. It was when a very clever and ambitious king, Philip, came to the Macedonian throne that danger began to threaten.

He drilled and improved his army, annexed the barbarian countries around him, and, by playing his game with wonderful craft and skill, he took advantage of the weakness and quarrels of the Athenians, Spartans, and Bœotians, and, in the end, won the great aim of his life, the headship of the Greek states.

Demosthenes, the fine orator, who saw through his plans and wiles, was his chief enemy. In the assembly at Athens he thundered forth again and again in stirring speeches that have come down to us, trying to persuade his countrymen to change their ways before it was too late.

THE DARK DAY WHEN THE FREEDOM OF GREECE PASSED AWAY FOR EVER

In the final battle of Chæronea, Demosthenes, though forty-seven years of age, was fighting in the Athenian ranks. Imagine his feelings on the evening of that awful day. The Athenians lost 1,000 men on the field, and 2,000 were prisoners in Philip's hands. The flower of the Theban army died to a man where it stood. The freedom of Greece was gone, and the outward glory of Athens was laid in the dust. Great as Philip was, for he had raised Macedonia from being a small, half-barbarous state to the headship of Greece, he had a still greater son, Alexander, whose extraordinary career of conquest we read in the story of Persia, that begins on page 5057.

Demosthenes proposed and carried a vote of thanksgiving when the news came of Philip's death. But Alexander crushed all hopes of freedom in Greece, and quickly showed his wonderful military genius in a campaign in Thrace. And then he set out on larger expeditions, till all the known parts of Asia and Africa were his, and he only longed for more worlds to conquer.

After his early death there was long fighting and confusion as to who should succeed to the great empire that he had built by conquest, and at length three separate kingdoms arose on its ruins. Macedonia with Greece fell to Antigonus.

HOW "CAPTIVE GREECE LED CAPTIVE HER PROUD CONQUEROR"

About a hundred years later, 168 years before Christ, Macedonia was made a Roman province. Twenty years after that, Corinth, the busy trading Panama of Greece, was taken, and Greece itself was made subject to Rome. But, as one of the Roman poets has said, "Captive Greece led captive her proud conqueror."

Rome had for years been learning from the art and literature of Greece, and when the conquest came, celebrated by long triumphant processions in Rome, instead of the usual train of vanquished kings and queens, strange beasts, and a great show of barbaric splendour, there passed before the Roman people the grand, silent forms in marble and bronze, the beautiful art treasures of Greece, torn from shrines and temples to adorn Roman cities, and to serve as models to the whole world.

Alexander had done his share in showing Greece to Asia, but it was chiefly by means of the Roman arms that the knowledge of Greek art and Greek learning was carried beyond the narrow borders of the little peninsula. In fact, Greece then became a "country without borders," and her wonderful influence and power are felt in a hundred ways all over the world to-day.

The next story of Countries is on page 5259.

WHAT THIS STORY TELLS US

We know how the thinking part of the mind, the intelligence or intellect, which learns, argues, and reasons, begins in what our senses tell us. And we know that there is a gradual progress from mere sensation, like knowing the difference between light and darkness, up to the ability to turn a telescope in a certain direction and to know that we shall find there a new star in the dark sky. We cannot study the intellect too deeply, and, in one sense, we can scarcely exaggerate its importance. Our possession of the power to think is the great mark that distinguishes us from the lower animals. It is by means of memory, and the power of calling up images in our mind, that we are able to think of ourselves in the past and in the future. This power of being aware of ourselves, of being able to figure ourselves in the past and in the future, is called *self-consciousness*, and is the great mark of man. But it is wrong to suppose, as many do, that the intellect decides our deeds. We read here how great a mistake that is.

WHY WE DO THINGS

CONTINUED FROM 5029

People used to suppose that knowledge made character, and so they thought that by teaching everybody how to read and write and do sums, everyone would be made wise and good. Now we know that in reality, though learning things is so useful, and though we cannot do without knowledge, knowledge does not in itself make us wise and good. The point is that knowledge and the intellect do not decide our deeds, one way or the other; they are simply power; and power, like dynamite, may cause an explosion and bury a hundred men, or it may blast the rock which buries them, and set them free.

The boy who learns to write may turn his knowledge to good account by writing something that will make men better for all time to come; or he may turn his knowledge to account by writing poisonous lies, or by forging someone else's name.

There is another part of the mind more important than the intellect; more important just because it, and not the intellect, decides our deeds; and this is the part of the mind which feels and wills. Feeling is a word which is used in two ways in English; we say that we feel hot, and we say that we feel angry; but these are different things—sensation and emotion — though they may go together. When we talk of the part of us which feels and wills, we mean the part which feels angry, happy, sorry, brave, cowardly, tender, cruel, and so on. The proper name for these feelings is *emotions*, and it is emotions that decide our deeds. That is why they are really the most important part of the human mind. Everyone will agree that the really important thing is deeds; it is deeds that make the man, and the nation, and history.

Now, some child may say that it is all very well for us to dismiss knowledge as if it did not affect our deeds; but that, in fact, every moment of our lives we act differently according to what we know, or think we know, or do not know. If it comes to that, one cannot forge a cheque unless one has the knowledge how to write; people who have not that knowledge do not forge cheques, and so the knowledge *does* make a difference to their deeds.

That is perfectly true, and a perfectly right criticism, and it brings us to the great point upon which so many mistakes are made. It is true that knowledge alters our deeds in a thousand ways every day. We act according to knowledge, or what we think to be knowledge; and yet what we said before was true. The man who wishes to take what does not belong to him wishes that none the less or none the more because he can write. If a man cannot write he may pick a pocket; if he *can* write he may forge a cheque; but in either case he is a thief—he wishes to steal. He will steal in a different way in the two cases, but stealing is stealing; and in both cases his theft is decided by feelings that he has, and feelings that he has not—emotions of desire for gold, without emotions of self-respect, or of consideration for the person who loses the gold, and perhaps without emotions of fear that he may be found out.

The truth is that reason and knowledge are pilots. The pilot is a guide, but the pilot does not decide where the ship is to go; something else does that. Perhaps it is a gale of wind; perhaps, if the ship is a human being, it is a gust of passion. The pilot is not the dictator; something else is the dictator, and calls in the pilot in order to gain its end, as when a thief wants money and calls in his knowledge of forcing locks, or of forging, or of cheating at cards, in order to gain his end. As a rule, what we want is happiness, perhaps by serving ourselves, perhaps by serving other people. Reason and knowledge do not make us desire happiness, but they tell us how we may best achieve it.

A COMMON MISTAKE THAT AFFECTS EVERYTHING WE DO

The common mistake that is made in this matter leads us to think that we have only to teach people, and they will act reasonably or rationally. It is often declared that man is a rational animal, meaning that he has a reason. It is true that man has a reason, but if he had nothing else he would never do anything; he would never make a movement but to breathe. The mistake is so serious because it affects everything we do in the way of education.

As a rule, we show little interest in the feelings or emotions of boys and girls, though these are the mainsprings of all human action; but we spend all our time in trying to develop the intellect, as if to know the right were to follow it. We teach a boy not to steal, and his intellect perfectly understands what we mean; yet he may steal, and we are surprised and disappointed. That is because we have not first taught ourselves how human nature is made. What we need to-day, and what is always needed, is men of good will; and the great business of real education and the real bringing up of children is to try to make them into men and women of good will. That is what we mean when we talk about training character, and the importance of character-making is that character, and not intellect, makes our conduct.

THE GREAT PART PLAYED BY FEAR IN THE HISTORY OF THE WORLD

When we come to study our emotions, or feelings in that sense of the word, we find that they correspond exactly to what are commonly called instincts. This has lately been proved by an English student of the mind, and is indeed a very important discovery. For instance, everyone knows that there is such a thing as the instinct of flight, and we know quite well that flight has something to do with being afraid.

This emotion of fear is one of the great emotions that decide the deeds of men and women and children in all places and ages. We may fear for ourselves, or for others; we may fear for this world, or for the hereafter. But in any case this is one of the great emotions that make history. Fear especially acts by preventing actions; it is the great controlling emotion which keeps people from doing things, and it has always been used by masters and governors of all kinds as the instrument by which they prevented people from doing what they did not want them to do.

Another important emotion is the emotion of disgust, which is not the same as fear; and that goes with the instinct which may be called the instinct of repulsion, which makes us shrink from slimy things in our food.

THE FEELING OF WONDER WHICH WE SHOULD NEVER LET DIE

Vastly more important is the instinct of curiosity, which goes with the emotion of wonder. Curiosity has become very marked among the higher animals, and it is stronger among the monkeys and apes than among any other creatures except ourselves. This emotion of wonder is very powerful in human life. But it is not really very common in grown-up people in any strong form. Practically all children have it, and perhaps it often leads them into mischief, gets them into accidents, and so on, but boys and girls would learn very little indeed without it.

Among grown-up people the feeling of wonder often dies, and they take all usual things for granted. Yet the instinct of curiosity and the emotion of wonder are immensely important, because in every age they persist in a few people, even when those people grow up. In them it is the main source of their intellectual effort; it is one of the principal roots of both science and religion, driving men to discovery and invention and to theories of the world and of mankind. We are on the way toward having a really great man when a strong emotion of wonder and the instinct of curiosity are combined with a fine intellect which they can use as their instrument.

Very important also is the fighting instinct, and the emotion of anger which goes with it. This is not nearly so common as, for instance, the emotion of fear, which in some form or other is possessed by everybody—even by those who think they do not know what fear is. It is a remarkable fact, for instance, that the fighting instinct and the emotion of anger are so very much more powerful in men than in women.

HOW WE SHOW OUR RELATION TO WILD BEASTS WHEN WE ARE ANGRY

In the lower animals we generally find that this instinct and this emotion occur among females only when they have their young to protect. But at such times they are extremely powerful, as men have known for many ages.

Anyone can see the importance of this, for it means the protection of the young and the future of the race; and that is why we find the character of the creature showing a new side, which no one could have guessed, when she becomes a mother. She is then capable of such tremendous anger that her young are protected. We think of the tiger as a courageous and terrible animal, but Darwin tells us that in India even the tiger very rarely dares to attack a young elephant protected by its mother—though perhaps he would not hesitate to attack the mother herself at any other time.

When we are under the influence of the fighting instinct and the feeling of anger, we sometimes show significant signs of our relation to the lower animals. We are apt sometimes to raise the upper lip and sneer and snarl. What this really means, if we knew it, is baring the teeth to prepare for biting. As with most of the other human instincts, the excitement of this one is expressed in its purest form by children. Many a little boy has, without any example or suggestion, suddenly taken to running with open mouth to bite the person who has angered him, much to the distress of his parents.

THE FEELINGS THAT GROW IN US AS WE GROW UP

As we grow older these feelings do not disappear in us, but they take a different form, which is not only different, but higher. It is one of the great marks of mankind that our instincts may take higher forms as we grow up. In well-developed men anger and the fighting instinct take the form of giving them courage, energy, and persistence. If difficulties are in the way, they only arouse our opposition and make us determined to overcome them. So we see that this instinct may have low forms and high forms.

Next we come to the most important of all our instincts, without which no human being could survive its birth for more than a few hours. This is the instinct of fathers and mothers, found much more strongly in mothers, though many fathers have it too. We may call it the mother instinct, though the more correct name for it is the *parental instinct*. So far as we know the world within us and the universe without us, this feeling is the noblest and highest of existing things—nor can we imagine anything higher; so that we call God Father, and say that God is Love.

THE BEGINNING OF THE LOVE OF PARENTS FOR THEIR CHILDREN

This instinct is more important for mankind than it is for any animals, for human babies are born more helpless and need love and care much longer than the offspring of any other living creature. This instinct which impels the mother to protect and cherish her young is not found among the lowest animals, but is found in increasing strength among the higher kinds of animals.

So far as we can judge, it began in the history of the world with fishes, that is to say, with the first backboned animals; though the way in which the worker-bee cares for the young bees ought to be remembered. We do not know how old the bee societies are. But, at any rate, some fishes watch over their eggs, and drive away enemies which might destroy them. From this stage onwards in the history of animal evolution the protection of the young by the parents comes more and more to depend upon the parent's feelings and behaviour, and the young need parental tenderness for a longer and longer period.

At last we reach the highest stage, where comparatively few young beings are born, but they are so well taken care of that most of them grow up. In such cases, says one authority, "the protection and cherishing of the young is the constant and all-absorbing occupation of the mother, to which she devotes all her energies, and in the course of which she will at any time undergo privation, pain, and death. The instinct becomes more powerful than any other, and can over-ride any other, even fear itself; for it works directly in the service of the race, while the other instincts work primarily in the service of the individual life, for which Nature cares little."

THE WONDERFUL LOVE OF A MONKEY AT THE ZOO

If we study this noblest of instincts among animals, it is the monkeys, and especially the apes, that show us it in the highest degree. There was seen at the zoological gardens, at the time when this was written, a monkey, lower than an ape, who had held one arm round her baby without one second's interruption, asleep or awake, ever since its birth several months before.

No one can question for a moment that this instinct goes with the emotion of love or tenderness. We can see it in our domestic cats, and it may often be noticed among birds. During sixteen hours of a summer day, a pair of tits, father and mother, carried without interruption two thousand separate morsels of food to their young ones. Only a powerful feeling could enable them to continue such a work. It is now agreed by careful students that this feeling is special and peculiar, and not a mixture of any other feeling; it is the feeling which the human mother has when she looks at her helpless baby. But, as is the case with the other instincts of human beings, it may take various other forms, as we shall see. It is a very striking fact that only in recent years has the existence and the importance of this feeling been recognised; and great thinkers in the past have actually declared that all the good and tender feelings that are experienced by human beings were obtained through education. On the contrary, they exist in our nature, and this is their root.

THE STRENGTH OF THE LOVE OF PARENTS FOR THEIR CHILDREN

It is true that among many savage peoples, and even among some civilised races, such as the Chinese, little babies, and especially girl babies, are killed, and some have supposed this to mean that there was no feeling of love for babies among such peoples. This is not the case. The reason why the babies are killed is in order that there shall be room for those who live, and when this terrible thing is done, the rule is that it is done in the first few hours. If a baby survives a day or two, its life is safe, because already it has called out the love and tenderness of its parents.

The feeling of parents for their young is far stronger than the feeling of children for their parents—a proof of the fact that this feeling is not gratitude or expectation of advantage, but genuinely unselfish. If, as was once asserted, parents cared for their children because they expected their children to care for them when they grew old, then children should care for their parents more than parents for their children. Yet we find that, though children owe everything to their parents, and though the parent's life may be perhaps a long period of pain and sacrifice and anxiety for the sake of the child, parental love is far stronger, because it is rooted in this great instinct, without which the race could not possibly go on.

THE LOVE FROM WHICH ALL OTHER GOOD THINGS SPRING

We see now that from this instinct, and the love which goes with it, spring all the good things in human nature—generosity, gratitude, pity, unselfishness, true love of our neighbours. When we seem to do good deeds for any other reason than the fact that this feeling is behind us, our deeds are not really good, but are done for the sake of some reward, or to avoid some punishment. The great fighting instinct, together with its emotion of anger, is specially aroused whenever the working of some other great instinct is interfered with. We saw how even gentle female nature may become fierce and terrible when the parental instinct joins with the fighting instinct, and this relation between tenderness and anger is extremely important.

When we find a man, or many men, indignant at some injustice or cruelty—at slavery, or cruelty to children, or massacres in Eastern Europe, or barbarity in the Congo—it is tenderness for the helpless, coupled with anger and the strong fighting instinct, that really makes this splendid indignation.

THE MEANING OF A CHILD'S GREAT LOVE FOR A DOLL

It is very interesting to ask when the parental instinct begins to show itself in human beings, and at once we find that this great instinct begins very early. The love of dolls is the childish prophecy of it. It is not at all true, as some have said, that a doll is merely a possession to a child, and that it will be just as pleased with anything else that is its own. The child prefers a doll, as everyone knows who has had the opportunity of watching young children. This parental instinct is genuinely inborn in children. A little girl fond of dolls will be only too delighted to exchange her doll for a real baby. A little girl not two years old has been seen—in a case where she could not possibly have been imitating anyone else—to kiss a small baby, and stroke its hands, and whisper to it, and act like a mother to it as plainly as could be.

There are some other instincts of less importance, but it will be enough for us to have learnt once and for all how important the instincts are, to learn that with each of the great instincts there goes a special kind of feeling, and, above all things, to learn that these instincts and feelings are the great things that make our conduct.

THE GREAT POWER OF SYMPATHY, FOR HAPPINESS OR FOR MISERY

Three new words describe other facts of our minds which also explain a great many of the things that we do; these words are *sympathy*, *suggestion*, and *imitation*. Sympathy really means "feeling with," and it is a fact that the signs of other people's feelings incline us to feel the same way. A baby smiles when it sees a smiling face; a baby or small child is very likely to cry when it hears other children crying. A merry face makes us feel brighter; we are terrified when we hear other people scream with terror. Nothing makes us angry more readily than other people's anger. Everyone knows what a difference it makes to be in one kind of company rather than another. In this sense of the word we must not suppose that sympathy always means kindness or goodness; that only springs from tender emotion. A person who has not tender emotion may still be very much affected by other people's sorrow or misery.

Suggestion is an extraordinary power that we have over each other, whereby we can convince each other about things, and often persuade each other to do all sorts of things without any real reason. Suggestion is best seen amongst children and childlike people, and children are commonly very much affected by older people, and the appearance of knowledge and strength and power that older people have.

HOW A HEADACHE MAY GO IF SOMEBODY SAYS IT IS GONE

It would be easy to write a book about suggestion, and indeed, many books have been written on the kind of suggestion that occurs when people have been *hypnotised*, as it is called. They are thrown into a kind of half-sleep in which they listen very readily to any suggestions that are made to them. This may be very useful if, for instance, a person has had a bad headache for months, and when hypnotised by some responsible person, he is told that the headache has gone and will not come back. Such is the power of suggestion that this will actually happen.

Imitation is also a great fact of our minds, living as we do in each other's company, for it explains a great many of the facts and the doings of men. We see it at all ages, and especially in the earlier ages of life, and it is one of those things to be remembered by people who suppose that man is a rational animal in the sense that he never does anything without a well-thought-out logical reason for it.

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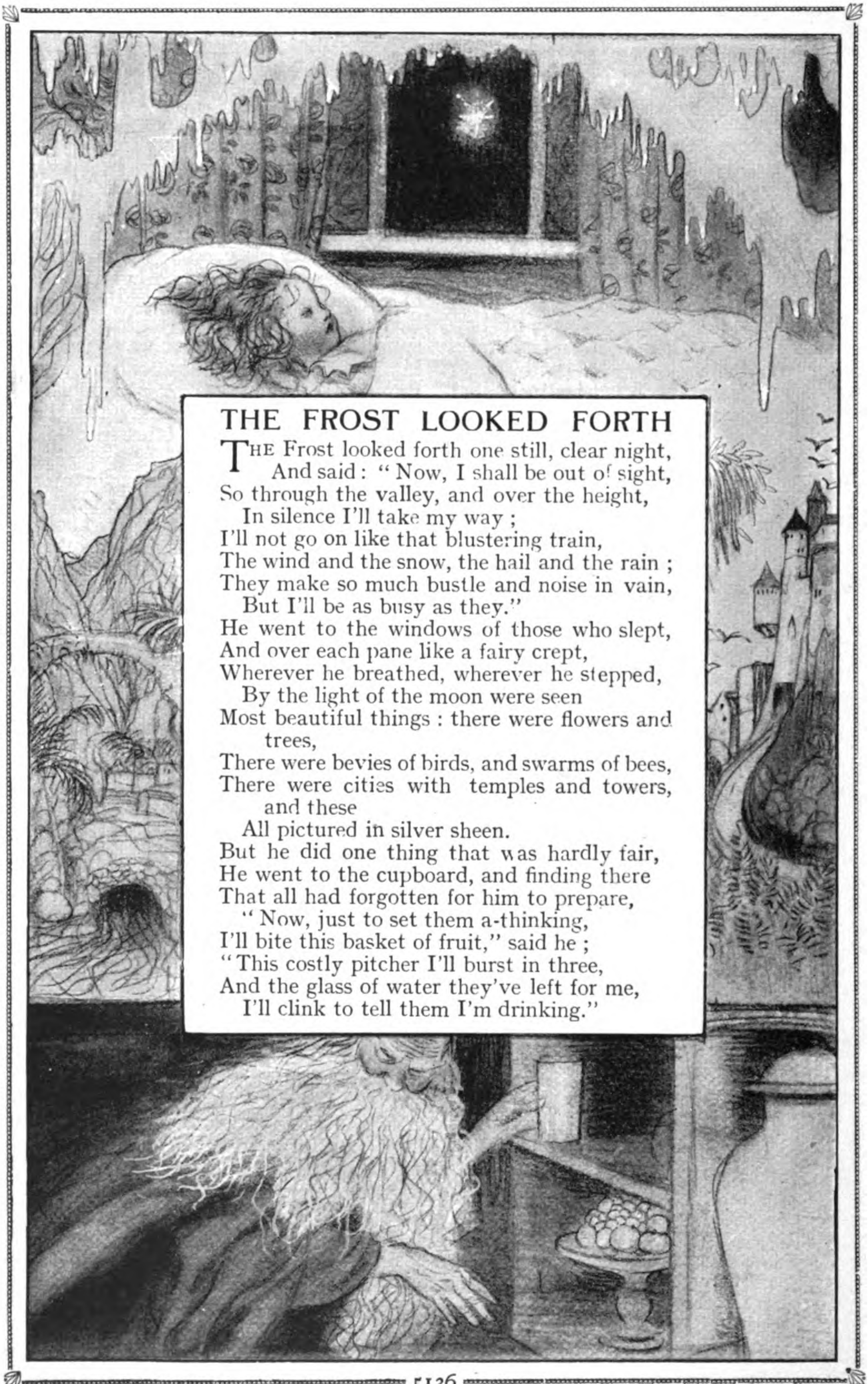


THE FROST LOOKED FORTH

The Frost looked forth one still, clear night,
And said: " Now, I shall be out of sight,
So through the valley, and over the height,
In silence I'll take my way ;
I'll not go on like that blustering train,
The wind and the snow, the hail and the rain ;
They make so much bustle and noise in vain,
But I'll be as busy as they."
He went to the windows of those who slept,
And over each pane like a fairy crept,
Wherever he breathed, wherever he stepped,
By the light of the moon were seen
Most beautiful things : there were flowers and trees,
There were bevies of birds, and swarms of bees,
There were cities with temples and towers, and these
All pictured in silver sheen.
But he did one thing that was hardly fair,
He went to the cupboard, and finding there
That all had forgotten for him to prepare,
" Now, just to set them a-thinking,
I'll bite this basket of fruit," said he ;
"This costly pitcher I'll burst in three,
And the glass of water they've left for me,
I'll clink to tell them I'm drinking."

The Child's Book of POETRY

A GREAT POEM BY SHELLEY

POETS without number have addressed odes to the skylark and endeavoured to describe the joyous song the bird pours forth as it wings skyward; but not very many have succeeded. One of the finest poetic descriptions of the skylark and its song was written by the late George Meredith, and in some respects his poem is considered finer than this famous ode by Percy Bysshe Shelley, though it is not so well known. There is scarce a line in these twenty-one verses that is not perfect in the beautiful image it raises in our mind's eye or the thought it suggests to us. The whole poem is a glorious achievement of art. That is, perhaps, its fault, as in reading it we are not so much conscious of the skylark itself as we are of the poet telling us in his golden speech about the little singer of the skies. It is none the less one of the shorter masterpieces of English poetry, and contains many phrases of such perfect form that they will remain for ever in our memory.

THE SKYLARK

CONTINUED FROM 5055

Hail to thee, blithe spirit!
Bird thou never wert,
That from heaven, or near it,
Pourest thy full heart
In profuse strains of unpremeditated art.

Higher still, and higher,
From the earth thou springest
Like a cloud of fire;
The blue deep thou wingest,
And singing still dost soar, and soaring ever singest.

In the golden lightning
Of the sunken sun,
O'er which clouds are brightening,
Thou dost float and run,
Like an unbodied joy whose race is just begun.

The pale purple even
Melts around thy flight;
Like a star of heaven
In the broad daylight,
Thou art unseen, but yet I hear thy shrill delight.

Keen as are the arrows
Of that silver sphere,
Whose intense lamp narrows
In the white dawn clear,
Until we hardly see, we feel that it is there.

All the earth and air
With thy voice is loud,
As, when night is bare,
From one lonely cloud
The moon rains out her beams and heaven is overflowed.

What thou art we know not;
What is most like thee?
From rainbow clouds there flow not
Drops so bright to see,
As from thy presence showers a rain of melody.

Like a poet hidden
In the light of thought,
Singing hymns unbidden,
Till the world is wrought
To sympathy with hopes and fears it heeded not.

Like a high-born maiden
In a palace tower,
Soothing her love-laden
Soul in secret hour
With music sweet as love, which overflows her bower.

Like a glow-worm golden,
In a dell of dew,
Scattering unbeholden
Its aerial hue
Among the flowers and grass, which screen it from the view.

Like a rose embowered
In its own green leaves,
By warm winds deflowered,
Till the scent it gives
Makes faint with too much sweet these heavy-wingèd thieves.

Sound of vernal showers
On the twinkling grass,
Rain-awakened flowers,
All that ever was
Joyous, and clear, and fresh, thy music doth surpass.

Teach us, sprite or bird,
What sweet thoughts are thine;
I have never heard
Praise of love or wine
That panted forth a flood of rapture so divine.

Chorus hymeneal,
Or triumphant chant,
Matched with thine, would be all
But an empty vaunt—
A thing wherein we feel there is some hidden want.

What objects are the fountains
Of thy happy strain?
What fields, or waves, or mountains?
What shapes of sky or plain?
What love of thine own kind? What ignorance of pain?

With thy clear keen joyance
Languor cannot be:
Shadow of annoyance
Never came near thee:
Thou lovest, but ne'er knew love's sad satiety.

Waking or asleep,
Thou of death must deem
Things more true and deep
Than we mortals dream,
Or how could thy notes flow in such a crystal stream ?

We look before and after,
And pine for what is not :
Our sincerest laughter
With some pain is fraught :
Our sweetest songs are those that tell of saddest thought.

Yet if we could scorn
Hate, and pride, and fear ;
If we were things born
Not to shed a tear,
I know not how thy joy we ever could come near.

Better than all measures
Of delight and sound,
Better than all treasures
That in books are found,
Thy skill to poet were, thou scorner of the ground !

Teach me half the gladness
That thy brain must know,
Such harmonious madness
From my lips would flow,
The world should listen then, as I am listening now.

HOLYROOD

In this imaginative little poem by Mr. Will H. Ogilvie, a living writer of distinction, we have a very good test of our knowledge of Scottish history. Holyrood is, perhaps, the most historic building in the former kingdom ; it is full of memories of the kings and queens who reigned at Edinburgh, and the poet supposes the ghosts of all these vanished figures to be thronging the ancient halls, with no one there for witness but the pale moon. We have not space here to explain the many allusions which the poet makes, but if our readers have studied carefully the story of Scotland they will have little difficulty in understanding them.

The moon held court in Holyrood last night—ten thousand stars
By ancient tower and archway climbed and kissed the window-bars.
The night wind knelt upon the hill, the crouching lion lay
With shoulder to the capital and blind eyes to the bay.
The moon held court in Holyrood, and as she entered in,
On damask fringe and tapestry the spider ceased to spin.
The slow moon slipped across the floor and bowed a queenly head
To greet the train that passed her by—a thousand sleepless dead.
She drifted down the storied hall and touched with spread white wings
The gallery of a hundred dead ; the corridor of kings.
She smiled upon a rebel prince, and stretched white hands to shrive
The gallant men, the peerless maids, that danced in " Forty-five."
She crossed a sleeping-chamber, hung with trappings rich and rare,
And kissed them softly one by one ; it was a queen lay there.
She heard the lute notes rise and fall, she watched the dagger sped,
While underneath her trembling wings the brown stain turned to red.
The moon held court in Holyrood, and from the northern tower
She looked along the High Street sad at heart for Scotland's flower,
And looking saw a rider pass, pale-faced and battle-worn
Beneath the drooping Flodden flag, all red and slashed and torn !

The moon passed out of Holyrood, white-lipped to open sky ;
The night wind whimpered on the crags to see the ghosts go by,
And stately, silent, sorrowful, the lonely lion lay
Gaunt shoulder to the capital and blind eyes to the bay.

THE PILGRIM FATHERS

This spirited poem by Mrs. Hemans, who is represented in our collection by several other pieces, describes the opening chapter of the history of the great American nation, for the powerful United States of to-day had this far-off beginning, on December 21, 1620, when the Pilgrim Fathers, discontented by the rule of King James I. and the restrictions imposed upon them in their native land, sailed across the Atlantic in the Mayflower, and there founded the colony which, in the course of time, grew powerful enough to assert and win its independence, after a war with the Motherland.

The breaking waves dashed high
On a stern and rock-bound coast,
And the woods against a stormy sky
Their giant branches tossed ;

And the heavy night hung dark,
The hills and water o'er,
When a band of exiles moored their bark
On the wild New England shore.

Not as the conqueror comes,
They, the true-hearted, came ;
Not with the roll of the stirring drums,
And the trumpet that sings of fame ;

Not as the flying come,
In silence and in fear—
They shook the depths of the desert's gloom
With their hymns of lofty cheer.

Amidst the storm they sang,
And the stars heard, and the sea ;
And the sounding aisles of the dim woods rang
To the anthem of the free !

The ocean-eagle soared
From his nest by the white waves' foam ;
And the rocking pines of the forest roared—
This was their welcome home !

There were men with hoary hair
Amidst that pilgrim band :
Why had they come to wither there,
Away from their childhood's land ?

There was woman's fearless eye,
Lit by her deep love's truth ;
There was manhood's brow serenely high,
And the fiery heart of youth.

What sought they thus afar ?
Bright jewels of the mine ?
The wealth of seas, the spoils of war ?—
They sought a faith's pure shrine !

Ay, call it holy ground,
The soil where first they trod.
They have left unstained what there they found—
Freedom to worship God.

GOOD-BYE

Emerson, the American philosopher and poet, here expresses a philosopher's discontent with the garish world, and the peace of mind that comes to him by his own fireside or in the wild wood, where he can afford to despise the glowing stories of the world's vanished pomp in the knowledge that a contented mind is better than all worldly ambitions.

Good-bye, proud world! I'm going home;
Thou art not my friend, and I'm not thine.
Long through thy weary crowds I roam;
A river-ark on the ocean brine,
Long I've been toss'd like the driven foam,
But now, proud world, I'm going home.

Good-bye to flattery's fawning face,
To grandeur with his wise grimace,
To upstart wealth's averted eye,
To supple office, low and high,
To crowded halls, to court and street,
To frozen hearts and hasting feet,
To those who go, and those who come—
Good-bye, proud world! I'm going home.

I am going to my own hearth-stone,
Bosomed in yon green hills alone—
A secret nook in a pleasant land,
Whose groves the frolic fairies planned;
Where arches green, the livelong day,
Echo the blackbird's roundelay,
And vulgar feet have never trod—
A spot that is sacred to thought and God.

Oh, when I am safe in my sylvan home,
I tread on the pride of Greece and Rome,
And when I'm stretched beneath the pines,
Where the evening star so holy shines,
I laugh at the lore and pride of man,
At the sophist schools, and the learned clan;
For what are they all, in their high conceit,
When man in the bush with God may meet?

A PARABLE

A parable, of course, is a story designed to convey a lesson, and may be written either in prose or in verse. James Russell Lowell, our American poet, conveys a very beautiful lesson in this poem. We often hear it said by sneering critics that though the Bible stories tell us of the miracles which the prophets of old were favoured with, no miracles now take place. Yet the bursting into flower of a little mountain violet is as great a miracle as we require to witness in order to believe in the everlasting Power that guides and sustains this world of ours. The word "eld" in the seventh verse means "olden time," and comes from the Anglo-Saxon.

Worn and footsore was the Prophet,
When he reached the holy hill;
"God has left the earth," he murmured;
"Here His presence lingers still.

"God of all the olden prophets,
Wilt Thou talk with me no more?
Have I not as truly loved Thee
As Thy chosen ones of yore?

"Hear me, Guider of my fathers.
Lo, a humble heart is mine;
By Thy mercy, I beseech Thee,
Grant Thy servant but a sign!"

Bowing then his head, he listened
For an answer to his prayer;
No loud burst of thunder followed,
Not a murmur stirred the air;

But the tuft of moss before him
Opened while he waited yet,
And from out the rock's hard bosom
Sprang a tender violet.

"God, I thank Thee," said the Prophet.
"Hard of heart and blind was I,
Looking to the holy mountain
For the gift of prophecy.

"Still Thou speakest with Thy children
Freely as in Eld sublime,
Humbleness and love and patience
Give dominion over Time.

"Had I trusted in my nature,
And had faith in lowly things,
Thou Thyself wouldst then have sought me,
And set free my spirit's wings.

"But I looked for signs and wonders
That o'er men should give me sway;
Thirsting to be more than mortal,
I was even less than clay.

"Ere I entered on my journey,
As I girt my loins to start,
Ran to me my little daughter,
The beloved of my heart;

"In her hand she held a flower,
Like to this as like may be,
Which beside my very threshold
She had plucked and brought to me."

THE TWO ARMIES

Oliver Wendell Holmes reads us here an old and familiar lesson. It is, perhaps, a poetic exaggeration to say the motto of valour's army is, "Our glory is to slay." It is easy, too, to contrast the ruthless work of the fighters, and the honour so readily awarded them, with the merciful and often unnoticed ministrations of the lovers of peace. But it is well that the kindly poets who love the quiet ways of life should thus remind us of those who serve in the army of peace, as there are always too many ready to sing the praises of the fighters.

As Life's unending column pours,
Two marshalled hosts are seen—
Two armies on the trampled shores
That Death flows black between.

One marches to the drum-beat's roll,
The wide-mouthed clarion's bray,
And bears upon a crimson scroll,
"Our glory is to slay."

One moves in silence by the stream,
With sad, yet watchful eyes,
Calm as the patient planet's gleam
That walks the clouded skies.

Along its front no sabres shine,
No blood-red pennons wave;
Its banner bears the single line,
"Our duty is to save."

For those no death-bed's lingering shade;
At Honor's trumpet-call,
With knitted brow and lifted blade
In Glory's arms they fall.

For these no clashing falchions bright,
No stirring battle-cry;
The bloodless stabber calls by night—
Each answers, "Here am I!"

For those the sculptor's laurelled bust
The builder's marble piles,
The anthems pealing o'er their dust
Through long cathedral aisles.

For these the blossom-sprinkled turf
That floods the lonely graves
When Spring rolls in her sea-green surf
In flowery-foaming waves.

Two paths led upward from below.
And angels wait above,

Who count each burning life-drop's flow,
  Each falling tear of Love.

Though from the hero's bleeding breast
  Her pulses Freedom drew,
Though the white lilies in her crest
  Sprang from that scarlet dew—

While Valour's haughty champions wait
  Till all their scars are shown,
Love walks unchallenged through the gate,
  To sit beside the throne!

SUPPOSE THE LITTLE COWSLIP

We have published in our book many little poems by unknown writers, simply because they have long and deservedly been children's favourites, and on this ground we can scarcely deny a place to these simple and pleasing verses.

Suppose the little cowslip
  Should hang its golden cup;
And say, "I'm such a tiny flower,
  I'd better not grow up!"
How many a weary traveller
  Would miss its fragrant smell!
How many a little child would grieve
  To lose it from the dell!

Suppose the glistening dew-drop
  Upon the grass should say,
"What can a little dew-drop do?
  I'd better roll away!"
The blade on which it rested,
  Before the day was done,
Without a drop to moisten it
  Would wither in the sun!

How many deeds of kindness
  A little child can do,
Although it has but little strength,
  And little wisdom too!
It wants a loving spirit
  Much more than strength, to prove
How many things a child can do
  For others, by its love.

BONNIE JEAN

The tender feeling which breathes through every line of this most charming love lyric makes it a gem of its kind, and it ranks among the finest of Burns' many songs. The third and fourth verses are thought to have been written by another poet, but they are in perfect harmony with the opening verses

Of a' the airts the wind can blaw,
  I dearly love the West,
For there the bonnie lassie lives,
  The lassie I lo'e best:
There wild woods grow, and rivers flow,
  And mony a hill between;
But, day and night, my fancy's flight
  Is ever wi' my Jean.

I see her in the dewy flowers,
  I see her sweet and fair;
I hear her in the tunefu' birds,
  I hear her charm the air:
There's not a bonnie flower that springs
  By fountain, shaw, or green,
There's not a bonnie bird that sings,
  But minds me o' my Jean.

O, blaw, ye weslin winds, blaw saft
  Amang the leafy trees;
Wi' balmy gale, frae hill and dale,
  Bring hame the laden bees;
And bring the lassie back to me
  That's aye sae neat and clean;
Ae smile o' her wad banish care,
  Sae charming is my Jean.

What sighs and vows amang the knowes
  Hae pass'd atween us twa!
How fond to meet—how wae to part,
  That night she gaed awa!
The Powers aboon can only ken,
  To whom the heart is seen,
That nane can be sae dear to me
  As my sweet, lovely Jean.

THE LAST RIDE TOGETHER

I said—Then, dearest, since 'tis so,
  Since now at length my fate I know,
Since nothing all my love avails,
Since all, my life seemed meant for, fails,
  Since this was written and needs must be—
My whole heart rises up to bless
Your name in pride and thankfulness!
Take back the hope you gave,—I claim
Only a memory of the same,
—And this beside, if you will not blame,
  Your leave for one more last ride with me.

My mistress bent that brow of hers;
Those deep dark eyes where pride demurs
When pity would be softening through,
Fixed me a breathing-while or two
  With life or death in the balance: right!
The blood replenished me again;
My last thought was at least not vain:
I and my mistress, side by side
Shall be together, breathe and ride,
So, one day more am I deified.
  Who knows but the world may end to-night?

Hush! if you saw some western cloud
All billowy-bosomed, over-bowed
By many benedictions—sun's
And moon's and evening star's at once—
  And so, you, looking and loving best,
Conscious grew, your passion drew
Cloud, sunset, moonrise, star-shine too,
Down on you, near and yet more near,
Till flesh must fade for heaven was here!—
Thus leant she and lingered—joy and fear!
  Thus lay she a moment on my breast.

. . . .

Who knows what's fit for us? Had fate
Proposed bliss here should sublimate
My being—had I signed the bond—
Still one must lead some life beyond,
  Have a bliss to die with, dim descried.
This foot once planted on the goal,
This glory-garland round my soul,
Could I descry such? Try and test!
I sink back shuddering from the quest.
Earth being so good, would heaven seem best?
  Now, heaven and she are beyond this ride.

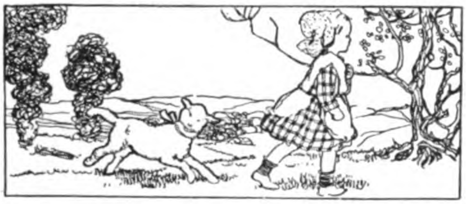
And yet—she has not spoke so long!
What if heaven be that, fair and strong
At life's best, with our eyes upturned
Whither life's flower is first discerned,
  We, fixed so, ever should so abide?
What if we still ride on, we two,
With life for ever old yet new,
Changed not in kind but in degree,
The instant made eternity,—
And heaven just prove that I and she
  Ride, ride together, forever ride?

—Robert Browning.

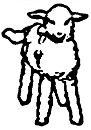
LITTLE VERSES FOR VERY LITTLE PEOPLE

I must not throw upon the floor
The crust I cannot eat,
For many a hungry little one
Would think it quite a treat.

'Tis wilful waste brings woeful want,
And I may live to say,
"Oh, how I wish I had the crust
That once I threw away."



Mary had a little lamb,
Its fleece was white as snow;
And everywhere that Mary went,
The lamb was sure to go.



He followed her to school one day—
That was against the rule;
It made the children laugh and play,
To see the lamb at school.

So the teacher turned him out,
But still he lingered near;
And waited patiently about,
Till Mary did appear.

Then he ran to her, and laid
His head upon her arm,
As if he said, "I'm not afraid,
You'll keep me from all harm!"

"What makes the lamb love Mary so?"
The eager children cry.
"Oh, Mary loves the lamb, you know,"
The teacher did reply.

Monday's child is fair of face,
Tuesday's child is full of grace,
Wednesday's child is full of woe,
Thursday's child has far to go,
Friday's child is loving and giving,
Saturday's child works hard for its living,
And a child that's born on the Sabbath day
Is fair and wise and good and gay.

Upon yon nearest rock-top
Can you see a dwelling stands?
Ah, 'tis the sweetest dwelling
Found in these mountain lands!

It holds the sweetest lady!
She is rich with golden hair,
Has clever, busy fingers,
Though so small and lily fair.

They wash, they starch, they broider,
They can spin, mix oaten cake,
And grind the white wheat finely,
The dainty loaves to bake.

And when that sweetest lady
Shall be mine, my own to hold,
Ah, earth to match her beauty
Will wear a crown of gold!

The Owl and the Pussy Cat went to sea
In a beautiful pea-green boat;
They took some honey and plenty of money
Wrapped up in a five-pound note.

The Owl looked up to the stars above
And sang to a small guitar;
"Oh, lovely Pussy, oh, Pussy, my love,
What a beautiful Pussy you are!"

Pussy said to the Owl: "You elegant fowl,
How charmingly sweetly you sing!
Oh, let us be married, too long have we tarried—
But what shall we do for a ring?"

So they sailed away for a year and a day
To the land where the bone-tree grows;
And there in a wood a piggy-wig stood,
With a ring at the end of his nose.

"Dear Pig, are you willing to sell for one shilling
Your ring?" Said the Piggy, "I will."
So they took it away and were married next day
By the Turkey that lives on the hill.

They had apples and quince and piles of mince
Which they ate with a silver spoon,
And hand in hand on the edge of the sand
They danced by the light of the moon.

IN LONDON ONCE I LOST MY WAY

In London once I lost my way,
In faring to and fro,
And asked a little ragged boy
The way that I should go.
He gave a nod and then a wink,
And told me to get there,
"Straight down the Crooked Lane,
And all round the Square."

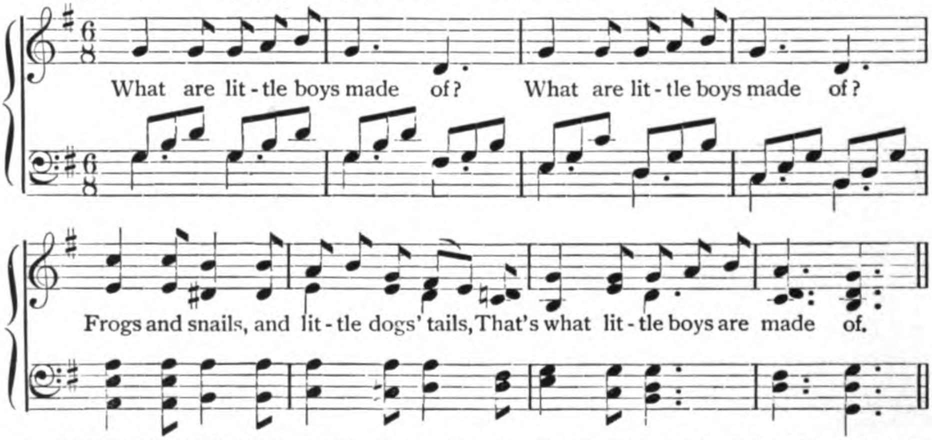
I boxed his little saucy ears,
And then away I strode;
But since, I've found, that weary path
Is quite a common road.
Utopia is a pleasant place,
But how shall I get there?
"Straight down the Crooked Lane
And all round the Square."

I've read about a Fairy Land,
In some romantic tale,
Where dwarfs, if good, are sure to thrive,
And wicked giants fail.
My wish is great, my shoes are strong,
But how shall I get there?
"Straight down the Crooked Lane.
And all round the Square."

I've heard about a pleasant land,
Where omelettes grow on trees,
And roasted pigs run, crying out,
"Come, eat me, if you please!"
My appetite is rather keen,
But how shall I get there?
"Straight down the Crooked Lane,
And all round the Square."

They say there is a garden fair,
That's haunted by the dove,
Where love of gold doth ne'er eclipse
The golden light of love.
The place must be a paradise,
But how shall I get there?
"Straight down the Crooked Lane,
And all round the Square."

WHAT ARE LITTLE BOYS MADE OF?


What are lit-tle boys made of? What are lit-tle boys made of?
Frogs and snails, and lit-tle dogs' tails, That's what lit-tle boys are made of.

A NURSERY RHYME OF THE CHILDREN OF FRANCE

The French and English versions of this Rhyme are side by side

Sur le pont d'Avignon,
L'on y danse, l'on y danse;
Sur le pont d'Avignon,
L'on y danse tout en rond.
Les beaux messieurs font comm' ça,
Et puis encore comm' ça.
Sur le pont d'Avignon,
L'on y danse, l'on y danse;
Sur le pont d'Avignon
L'on y danse tout en rond.
Les belles dames font comm' ça
Et puis encore comm' ça;
Sur le pont d'Avignon
Tout le monde y danse en rond!

On the bridge of Avignon,
See them dance, see them dance!
On the bridge of Avignon,
They trip around, retire, advance:
Gallant swains bend low, like this,
And once again do so, like this.
On the bridge of Avignon,
See them dance, see them dance!
On the bridge of Avignon,
They trip around, retire, advance.
Fair ladies curtsey low, like this,
And once again do so, like this.
See them dance, see them dance,
On the bridge of Avignon.

A STORY OF FOUR SISTERS

THIS is one of the most delightful of the many stories for boys and girls which have ever been written. The author was a lady named Louisa May Alcott, and she was born at Germantown, Philadelphia, in 1832. Her father was deeply interested in education and philosophy, but was very poor. The family knew the pinch of poverty, yet always contrived to keep bright and hopeful. Miss Alcott had three sisters, and their characters are all sketched for us in this story. Meg, Amy, and Beth are only fictitious names for them, and in the character of Jo we see Miss Alcott herself. Mr. and Mrs. March are based upon her own father and mother, and other personages in the story are taken from real life, as well as many of the incidents described. The book appeared originally in two parts, "Little Women" being the first, and "Good Wives" the second part, but they are usually printed together as one tale. Miss Alcott died at Concord in 1888.

LITTLE WOMEN AND GOOD WIVES

CONTINUED FROM 5096

IT is in the time of the Civil War, when the southern states were fighting the states of the north over the question of secession, that our story begins. But its scene is a quiet little village of New England, not far from Boston, where only faint echoes of the war are heard.

Tucked away in a quaint old-fashioned house here were four sisters, named Meg, Jo, Beth, and Amy, and a happier quartette never shared a home-nest together. Their father, Mr. March, was away, serving as chaplain to one of the regiments of the north, and their mother, a gem among housewives, had hard work to provide for the family. They had very little to live on, but their cheerfulness and courage never failed.

Meg and Jo were the two elder sisters, and they helped their mother by earning a little money, Meg looking after the young children of a wealthy family, and Jo running errands for her rich aunt, who was a kind-hearted, but rather exacting, old lady. For all their own narrow means, the sisters contrived to do little acts of kindness to the poorer people in their neighbourhood, and perhaps that was one of the reasons why they were always so bright and cheerful, as there is no satisfaction like that which comes from doing service to others.

A new companion came into the little circle of the Marches when old Mr. Laurence and his grandson Theodore came to live in the big house next door. Theodore was a dark, handsome boy of foreign appearance. His mother had been an Italian lady, whom Mr. Laurence's son had married against his father's wish. Theodore was now an orphan, and heir to his grandfather's wealth. The home of the Laurences was richly furnished, but that was nothing to the lonely boy who lived there with the old man, until the merry girls from next door brought laughter and sunshine into it.

Jo was Laurie's greatest chum, as she was something of a boy herself, athletic and prankish, and yet fond of books and reading. He confessed to her that he wanted to be called Laurie, as he was afraid the boys might think his proper name rather "girly," and might be tempted to christen him Dora!

In that snowy winter when this new friendship began, there were constant comings and goings between the two houses. The girls got up the most exciting plays, of which Jo was the author, Beth supplying the music, and in these Laurie took his part. They had their amateur magazine, "The Pickwick Portfolio," the organ of their Pickwick Club, of which all were members, and each was known by the name of one of the characters in Dickens's story. But perhaps best of all was their post-office, which maintained a regular service between the two houses, and through which, in the years that were to come, many a love-letter passed from one house to the other. Of the girls, Beth was the shyest and most retiring, a real home-bird, but her sweet and gentle nature had considerable influence upon her sisters. If there was a touch of vanity in any of them, Amy, the youngest, had it, but for all that she was as bright and lovable as any. While Beth stayed at home and helped in the housework, with their old servant Hannah, Amy went to school.

WHY AMY WAS TAKEN AWAY FROM SCHOOL, AND HER MOTHER'S ADVICE

Now, the children of New England in those days had a fondness for pickled limes, and were apt to bring these for eating in school hours, which was a great offence—and Amy greatly offended. The teacher punished her so severely for this that her mother took her away from his school, as she did not like his way of teaching.

"That's good! I wish all the girls would leave, and spoil his old school. It's perfectly maddening to think of those lovely limes," sighed Amy, with the air of a martyr.

"I'm not sorry you lost them, for you broke the rules and deserved some punishment for disobedience, although I should not have chosen that way of mending a fault," was the mother's severe reply, which rather astonished the young lady, who expected nothing but sympathy. "You are getting to be rather conceited, my dear, and it is quite time you set about correcting it. You have many little gifts and virtues, but the great charm of all power is modesty."

"So it is!" cried Laurie, who was playing chess in a corner with Jo.

MEG GOES TO TOWN AND HAS A TASTE OF FASHIONABLE LIFE

It was not long after this that Meg received an invitation to visit her old school friend, Annie Moffat, and as the Moffats were wealthy people who enjoyed the "fashionable life" of the great city where their home was, there was a great deal of preparing for Meg's two weeks with them. As each of her sisters helped to fit her out, and her own good looks made even the simplest clothes seem dainty, Meg cut quite a figure at the Moffats' parties.

Laurie had also received an invitation to one of these parties, and Meg behaved rather badly to him, perhaps because she found herself the centre of so much interest among the Moffats' friends; perhaps, also, because she heard it whispered there that Mrs. March was trying to make a match between her and Laurie. When she "'fessed" this at home on her return, Jo and her mother were indignant.

"Well, if that isn't the greatest rubbish I've ever heard!" cried Jo. "Just wait till *I* see Annie Moffat, and I'll show you how to settle such ridiculous stuff. The idea of having 'plans' and being kind to Laurie, because he's rich, and may marry us by-and-by!"

"But, mother, *do* you have 'plans,' as Mrs. Moffat said?" asked Meg.

"Yes, my dear, I have a great many; all mothers do, but perhaps mine differ from Mrs. Moffat's. I want my daughters to be beautiful, accomplished, and good; to be admired, loved, and respected; to have a happy youth, to be well and wisely married; and to lead useful, pleasant lives, with as little care and sorrow to try them as God sees fit to send.

A GOOD MOTHER'S PLANS FOR HER DAUGHTERS' FUTURE HAPPINESS

"To be loved and chosen by a good man is the best and sweetest thing which can happen to a woman. But I'd rather see you poor men's wives, if you were happy, than queens on thrones, without self-respect and peace."

Meg's little journey into Vanity Fair, represented by this fortnight amid the fashionable life of the city, had not been without its use in showing her the silliness of the gossip people talked in "fashionable circles," and only made her love her simple home-life more.

Time slipped away in this pleasant companionship, and the girls grew into young women for whom the good fortune their mother had wished was perhaps near at hand. Jo's amateur contributions to "The Pickwick Portfolio" had made her ambitious of appearing in real journals, and when one day she had news that two of her stories were accepted, her delight knew no bounds. Laurie was as proud when he heard of it as if he had written the stories himself. And it was he who then let her into a secret when he said he more than suspected Mr. Brooke, his tutor, was in love with Meg, for he had seen one of Meg's old gloves in Mr. Brooke's pocket. But the idea of anyone coming to take Meg away did not please Jo. " I'd like to see anyone try it ! " she said fiercely.

One November day a telegram was received stating that Mr. March was in hospital at Washington and asking Mrs. March to come at once. It was as though the grey November sky had suddenly turned black indeed. All the girls were busied at once helping the mother with her preparations to leave that evening ; but Jo disappeared mysteriously, and Laurie went in search of her. When she came back she was proud to hand her mother twenty-five dollars to add to the little sum of money Mrs. March possessed for the expenses she was now to meet. How had Jo managed to get this useful addition ? By the simple process of selling her beautiful tresses, for she now appeared before them with her hair cut short.

DARK DAYS ARE FOLLOWED BY THE JOY OF FATHER'S HOME-COMING

These were indeed dark days, for though news came at length that the father was recovering, poor Beth was stricken with fever, which she had contracted from the child of a poor woman in the village to whom the girls were always rendering some little service. Jo had no time now for her poems and stories. Frolics were all forgotten in her devotion to her sister, whom she nursed so tenderly and so well that when Mrs. March came home with the good news that father was rapidly improving, Beth was already convalescent.

Christmastide had come round once more, and they all felt that if only their father were strong enough to be with them, nothing would be lacking to make it the merriest season they had known. But on Christmas night Laurie came in with such an air of delight and suppressed excitement that they all felt he was the herald of good news. And in a moment more, while they waited for Laurie to speak, in came Mr. Brooke supporting Mr. March himself, who stepped smiling into the room. Four loving pairs of arms were round him in an instant, and Jo, in her excitement, almost fainted, while the dignified Amy fell over a stool and did not even endeavour to get up, but hugged her father round his legs, and quite by accident Mr. Brooke kissed Meg ; and Beth, in her little red wrapper, ran out from her room straight into Mr. March's arms, strong again in the joy of her father's return.

SOMEBODY COMES TO STEAL MEG AWAY FROM HER LOVING SISTERS

It was soon after this that Mr. Brooke proved the truth of Laurie's suspicion, and much to Aunt March's disgust—for the old lady wished to see her nieces marry wealthy men—Mr. and Mrs. March agreed that Meg should become Mrs. Brooke in three years' time, when she would be twenty. Before that happy day came round, John Brooke had taken his share in the war, and had been wounded in the good cause ; but the war was now over and he was back in the village again, working hard to prepare the home for Meg.

The years had made Amy into quite a beauty, while Beth was still the sweet, shy creature she had ever been ; and Jo, as boyish as ever, was still dreaming of authorship and doing, too, for other things she had written were finding acceptance at the hands of real editors. Mr. March had settled down to his own work at home, and though his wife's hair was greyer than before, she was still strong and happy. Laurie, away at college, was still the fast friend of this little household.

To the last her parents and her sisters seemed loath to let Meg leave the old nest ; but her marriage made hardly any difference, as she came and went in her mother's house almost as when she had been a girl.

THE GREAT DAY WHEN JO WON A PRIZE FOR ONE OF HER STORIES

It was a great day for Jo, when, having won a hundred-dollar prize for a story, she was able to send her mother and Beth, who seemed to grow paler as the days went by, for a month at the seaside.

Jo also wrote a novel which was moderately successful, and the three hundred dollars she got for it made her feel quite wealthy. Her great longing was to visit Europe, and see something of the life of those famous cities she had read so much about. But Amy was the one to whom that good fortune came, Aunt March furnishing the money to send her favourite niece abroad with another relative, who was to make a tour in Europe. Jo, however, concealed her own disappointment, and worked loyally in helping Amy to prepare for her long journey.

Now, all this time Laurie had been such friends with all the girls that, when Jo had spoken of the possibility of his "marrying us," she meant that there was none of them he seemed to care for more than the others.

WHY JO WENT AWAY, AND SOMETHING ABOUT A PROFESSOR

But of late she had felt that this friendship for herself was deepening into love, and she made up her mind that that was not to be, as she half suspected Beth was in love with him. And that was why Jo suddenly betook herself to New York as a teacher.

Before long she was writing home about the good and gentle Professor Bhaer, from whom she was receiving tuition in German. It was clear that the professor was very much in Jo's thoughts. That was one of the reasons, but not the only one, for her declining to be the wife of Laurie when that dearest friend, who had now graduated with honours from his college, put the tender question to her one summer day at home.

Old Mr. Laurence now determined on a visit to Europe, and Laurie went away with him. In Laurie's travels he met Amy in the south of France, and was filled with pleasure to find how beautiful she had grown in womanliness. He had thought that Jo's refusal of him would leave him with a wounded heart for years, but somehow in the presence of Amy the wound seemed quickly to heal.

LAURIE AND AMY, AND A PRETTY SCENE ON THE LAKE OF GENEVA

Before long he discovered, to his own surprise, that Amy was the sister whom he loved. One day, when they were rowing on the Lake of Geneva, whither he had followed her, Amy took an oar, and together they kept time as the boat went smoothly through the water. Neither of them spoke for a little.

"How well we pull together, don't we?" said Amy, who objected to silence just then.

"So well that I wish we might always pull in the same boat. Will you, Amy?"—very tenderly.

"Yes, Laurie," she answered, very low. Then they both stopped rowing, and unconsciously added a pretty little picture of human love and happiness to the dissolving views reflected in the lake.

Meanwhile, away at the old home in New England Jo was very lonely; but she worked hard at her writing, and busied herself in household affairs to help the slow months along. Then one day came a new burst of happiness, when Laurie and Amy arrived—already married! Jo and Laurie were really better friends than ever, for the unselfish elder sister found a new joy in Amy's happiness. But Professor Bhaer was becoming quite a frequent visitor at the home, and it was noticed that Jo had a habit of blushing when he entered, or even when his name was mentioned.

This being so, in due course it was no great surprise to all who were interested to know that the good professor had seized an opportunity one rainy day, when he and Jo had to share the same umbrella, to ask her if she loved him well enough to have him for her husband, whose heart was full of love even if his hands were empty. And, putting her hand in his, for she dearly loved a jest, she answered: "Not empty now," and kissed the professor under the umbrella.

THE HAPPY DAYS FOR ALL AT THE HOME OF "MOTHER BHAER"

It was more than a year afterwards that Aunt March died and left Jo her country house. This gave her and her sweetheart the happy idea of founding a boys' school, where she was to reign over a regiment of boys as "Mother Bhaer." It never was a fashionable school, and the professor did not lay up a fortune; but it was just what Jo intended it to be—"a happy, homelike place for boys who needed teaching, care, and kindness." And in the years that followed, during many a happy holiday, the sisters, with their husbands and their children and Mr. and Mrs. March, the happiest of grandparents, gathered there in loving companionship to talk over the days that had been, recalling the tender memories of their own childhood. On these occasions a toast that was always honoured was "Aunt March, God bless her!" For the professor could never forget how much happiness he owed to that crotchety old lady with the kind heart.

The next Famous Books are on page 5225.

CANADIAN FUR TRADERS AND TRAPPERS

A FEW years ago, Quebec celebrated the three hundredth anniversary of the beginning of the fur trade in the western hemisphere. Trading in furs was the leading enterprise of the Dutch during the short period of their supremacy. It was the chief occupation of the English during the first century of their rule over the thirteen colonies and was the chief interest of the French in the days of their supremacy in Canada. In extending the fur trade, David Mackenzie discovered the Mackenzie, David Thompson, the Thompson, and Simon Fraser, the Fraser River. People now realise that the trapper, the hunter, and the fur trader have performed invaluable services in exploring and civilising America.

THE FRENCH, THE FIRST TRADERS

Shortly after Columbus discovered America hardy Frenchmen were found fishing for cod off the Banks of Newfoundland. Many of these fishermen discovered that the natives on the neighbouring shores had valuable furs for which they were ready to take mere trinkets. Soon many hardy mariners gave up their fishing trade to devote their entire time to the more lucrative one of fur trading.

During the French rule in Canada the fur trade was considered by far the most important occupation of the people. The great profits in furs were the chief incentives to further exploration and colonisation. In a few years, fur animals in the vicinity of settlements became scarce. Traders and trappers found it necessary to travel further and further inland. As early as the seventeenth century they travelled for months into unsettled wastes, trapping, hunting and trading goods with the Indians for furs.

"COUREURS DES BOIS"

The rule of the priests was almost as strict as that of the Puritans in Boston or the Quakers in Philadelphia. The church had harsh laws against drinking and it was only allowed in Montreal at the annual fur fair, when all the townsfolk with their savage guests had been in the habit of becoming intoxicated from time immemorial. Neither the trappers, when they came home to squander their money in holiday making, nor the loafers of the cities, for whom they willingly bought liquor, could bear these intolerable restrictions. Many offenders in order to escape punishment sought the free and reckless life of the woods. It was then, for the first time, that the French trappers, hunters and canoemen got the name of *coureurs des bois*, (wood-runners), which they retained ever after when in the service of the different fur trading companies. Rarely did they return to their native land. The wild roving life in the wilderness was too exciting to permit a voluntary return to the narrow limits of civilisation. The wood-runner as a rule took to himself an Indian wife and got along pretty well with his squaw. In addition to hunting and trapping the wood-runners became canoe-men and freighters to the trading companies. To the half-breed children of these French and Indian parents descended the vocation of the father and the roving instincts of the mother. To this class may be added a considerable number of "metis," the offspring of Scotch and English fathers and Indian mothers. Scattered over the vast western country, the half-breed forms the advance-guard of civilisation.

THE HUDSON'S BAY COMPANY

While the French were developing their fur trade a strong rival appeared in the north, establishing its trading posts throughout the vast wilderness surrounding Hudson Bay. In 1670, King Charles II granted to a company the exclusive privilege of trading, and the

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full power of governing the district drained by Hudson Bay. This corporation, the pioneer in its field, and the one which to-day is the largest fur trading enterprise in the world, is the Hudson's Bay Company.

ACTIVITY OF THE COMPANY

The company built many trading posts on the shores of Hudson Bay and along the rivers that emptied into this great inland sea. In June vessels left England with merchandise and in September started homeward laden with furs collected from the various trading posts. Guns and ammunition usually formed a large part of the cargoes sent to America. The company, being a trading corporation, did not make any attempt at colonisation. It aimed to preserve the forests as breeding places for animals and to keep settlers out.

THE FRENCH INVASION

In order to get furs, the Hudson's Bay Company sent its traders to the Indian tribes inhabiting the vast wilderness to the south. They succeeded in turning a great amount of Indian trade from the French to the northern posts. This aroused the anger of the French, so that in June, 1686, they fitted out an expedition and sent it northward to drive their rival from the Hudson Bay district. The French captured all the leading trading posts, and seized many valuable furs. During the European wars of the next few years, the posts changed hands many times. The end came with the treaty of Utrecht in 1713, when King Louis of France surrendered all his claims to Hudson Bay and the surrounding territory. After the peace the company rebuilt many trading posts destroyed during the struggle, and opened new stations in remote places. The trade increased rapidly and by the middle of the eighteenth century was very profitable.

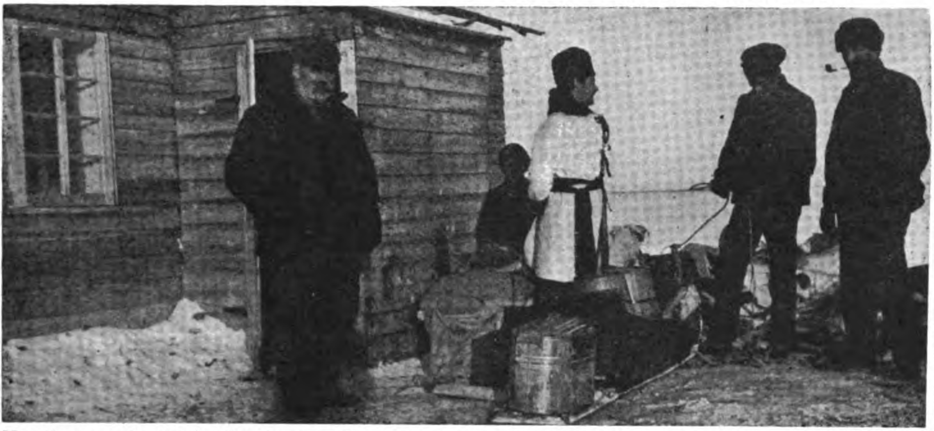
THE NORTHWEST COMPANY

The change of flag in Canada brought a great number of Scotch merchants to Montreal and Quebec. It was not long before they learned of the profits of the fur trade and engaged extensively in it. In 1783, the chief traders founded the famous Northwest Company. The new company engaged more than two thousand *coureurs des bois* who had been trapping on their own account since the English conquest. These French Canadians rendered valuable assistance, as they knew every path and stream from Labrador to the Rocky Mountains. Within a few years trading posts of the Northwest Company could be seen down the St. Lawrence, up the Ottawa and the Great Lakes, across the prairies to the Rockies and northward by the Athabasca and Mackenzie Rivers to the Arctic circle. Their headquarters were at Montreal while the chief trading post was first at Grand Portage, and afterwards at Fort William on the northern shore of Lake Superior. Each year, a solemn meeting was held where the wealthy members of the corporation made a demonstration to terrorise their savage allies and dependents.

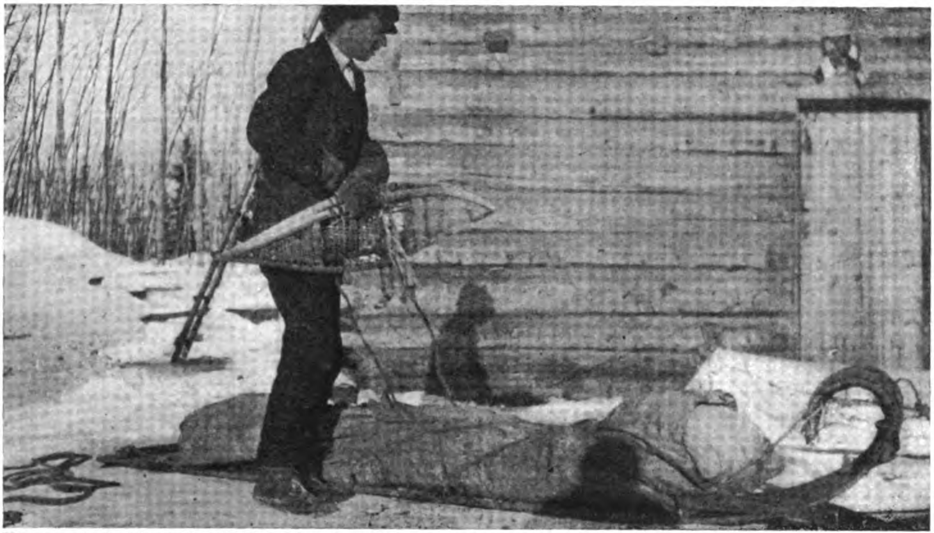
THE CLASH

It was inevitable that the competing companies should clash sooner or later. They were divided by blood and religion as well as by trade jealousy. The employees of the Hudson's Bay Company were Scotch almost to a man, while those of the rival were chiefly French Canadians or half-breeds and ardent Roman Catholics. When they came together, they were always ready to fight, employing all the cruelties of Indian warfare. The companies first came to blows on the Saskatchewan. The Northwest traders were in possession of the Saskatchewan valley, claiming they were the legitimate successors to the old French explorers. The Hudson's Bay Company also laid claim to the rich fur region. Neither would give way, so open warfare broke out. Forts were destroyed and fur stores fired. Ruffians and murderers were in the employ of each company to wreak vengeance on the enemy. Men were murdered; women and children were tortured with all the cruelties known to the Indians. If forgotten graves could give up their secrets they could tell many a tale of massacre, of violence and of treachery between Fort Garry (now Winnipeg) and the Rockies. Neither company cared to keep records of this brutal warfare where massacre, murder, and tor-

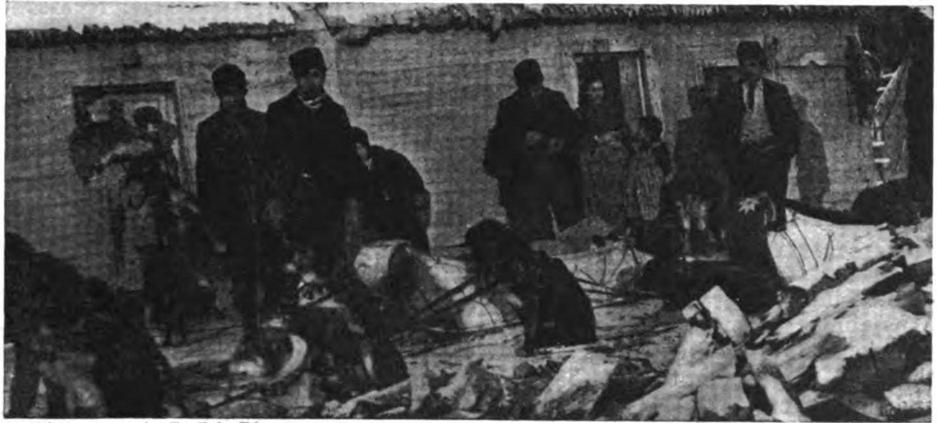
TRADING POSTS IN THE FAR NORTH



Here is a post in the far Northwest with the agent in charge at the door. The tall man in white is a Russian who has drifted across the Pacific to trade in furs.



The agent at this post is loading the sled, which is really a toboggan, that is, a flat board without runners. This sled is best for soft snow, and from the snowshoes we know that is what is expected.



At this post on the Buffalo River, the dogs are harnessed and the sledges are about to start. The people you see are half-breed Indians employed by Revillon Freres. The woodpile is in the foreground.

Pictures by courtesy of Revillon Freres, New York.

ture were committed by paid assassins. Finally Sir George Simpson, a young Scotchman, was appointed head of the older company. He brought peace and union, in which the Northwest Company lost its separate name and organisation, and the Hudson's Bay Company once more had the monopoly of the great fur country. This was in 1821.

THE SALE TO CANADA

The growing national sentiment took shape in 1867 when four provinces were united into the Dominion of Canada. A desire soon arose to expand westward and northward. At last, the company was induced to surrender all its rights to Rupert's Land. The Canadian government paid the company one million five hundred thousand dollars and allowed it to hold all its posts, ten acres of ground around each of them and to retain a twentieth of all the land within the fertile belt between the Red River and the Rocky Mountains.

The transfer of Rupert's Land was made to the Dominion in 1870, just two centuries after Charles had granted the charter to the company. The Hudson's Bay Company lost the political power which it had wielded for two hundred years over a large part of North America. It still gains a large revenue from the trade in furs, and it shares with the Dominion government in the profits which the sales of land bring through the extension of the area of cultivation. During 1910 the profits from land sales amounted to over a million dollars.

The fur trade was thrown open to all, but for many years few competitors entered the field. About 1890 independent traders were attracted to the fur regions. In 1901 Revillon Frères, a wealthy French company, opened many trading posts in the far north and now secures a large share of the best furs. A few small companies have entered into the trade. The old company still remains the greatest fur company in the world. It exports about two-thirds of the furs sent from the north and one-half of those sent from the whole Dominion.

MONEY OF THE FUR LAND

A peculiarity of the fur trade is that money values for ages were unknown and are to-day in many of the trading posts. Everything is measured in terms of skins. The skin is a very old term and is based upon the standard of the beaver skin or, as it is called, "made-beaver." A "made-beaver" is the skin of a full-grown perfect beaver, killed in season, properly cured and weighing from sixteen to twenty ounces. It is the uncoined money of the north. The skin does not pass in transactions, but is the unit of value or standard in terms of which furs or goods are measured. Traders have small sticks to represent it, and each passes for fifty cents in money.

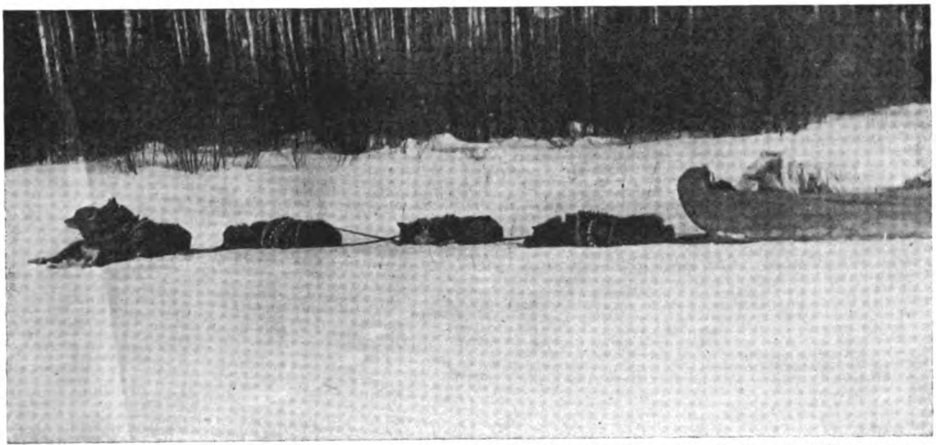
THE FUR HUNTER

The expert hunters and trappers of fine furs are the wood Indians, and from them are traded the greater part of the furs that come from the north. Generally peaceful, they pride themselves upon an honesty unknown to the lawless tribes of the plains. While a trader was visiting a neighbouring post an Indian came to exchange his furs for goods. Finding the door locked, he broke in, took what goods he needed and left what he considered a fair value in furs. Six months later the Indian came back to see if he had left enough furs for his goods.

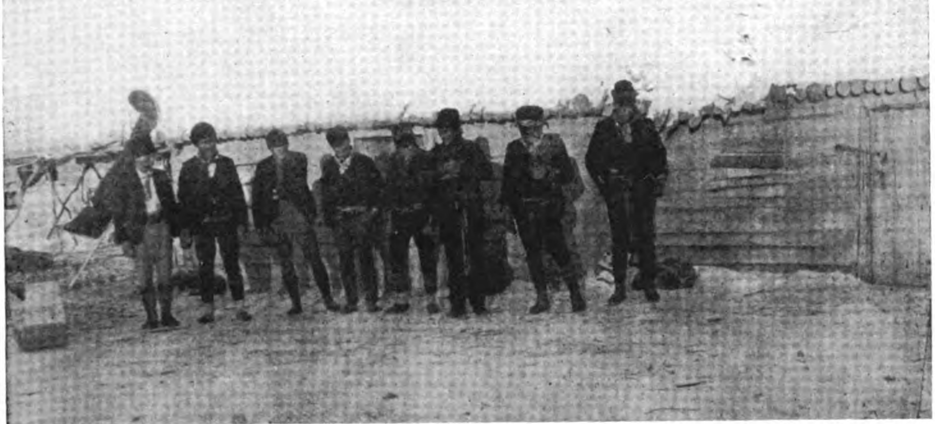
By the beginning of November, the animals have their winter coats and fur is in season or prime as it is called. The trapper, who has taken his residence in some favourite locality, now prepares to lay out his trapping walk. He leads a solitary and dangerous life. To be alone in the trackless forest demands a courage and endurance of no ordinary kind. Silently he trudges along; for the trapper must not frighten away the animals by whistling or singing. The cold is below zero but the fur will be the finer. Fatigue and cold often exhaust him. A snow storm may overtake him; the bearings and landmarks are lost and forgotten and he who has promised a speedy return is seen no more.

As he enters the forest, his keen eyes scan every mark upon the snow for the

HOW THE FURS ARE CARRIED



When the dogs, which pull the sledges, are tired, they are allowed to rest. You see them here in the snow. The men are preparing their dinner elsewhere. One can feel how cold it is.



Driving dogs requires both skill and endurance, for the driver must run beside them, guiding them by his voice and whip. Here are the runners attached to this post. They look awkward here but on the trail they are graceful enough. These men are employed by Revillon Freres in Saskatchewan.

One of these men here is a member of a great fur company, but all the faces are so browned by the sun and blackened by smoke that it is difficult to decide which is white and which Indian.

Pictures by courtesy of Revillon Freres, New York.

tracks he seeks. He reads signs left behind by a passing animal as readily and truly as if he had been present and witnessed the whole scene. It matters little whether they are fresh or half blotted out; he never makes a mistake in his reading of the language of tracks. When he observes the footprints of mink or marten he unstraps his pack and starts to set his traps or to make his deadfalls. These he scatters over a long line of country, it may be ten or fifteen miles in length. Once a week, he starts forth to visit his line, gathering the furs caught, repairing the broken traps or deadfalls and setting them again.

"THE EVIL ONE"

The greatest enemy of the fur hunter is the wolverine, or North American glutton. He follows the trapper's footsteps and destroys the animals as they are caught. This curious animal has a long body mounted on short legs of great strength. His large and powerful feet are armed with sharp, curved claws. There is not living a more cunning and crafty animal. During winter months he lives by stealing from the traps of the hunters. He hunts day and night for the trail of man and when it is found follows it unerringly until he arrives at a trap or deadfall. He will destroy the animals caught and also the traps. When once a wolverine has established himself on a trapping walk, the hunter's only chance of success is to change ground. Such serious injury does the wolverine inflict that he has received from the Indians the name of "Evil One."

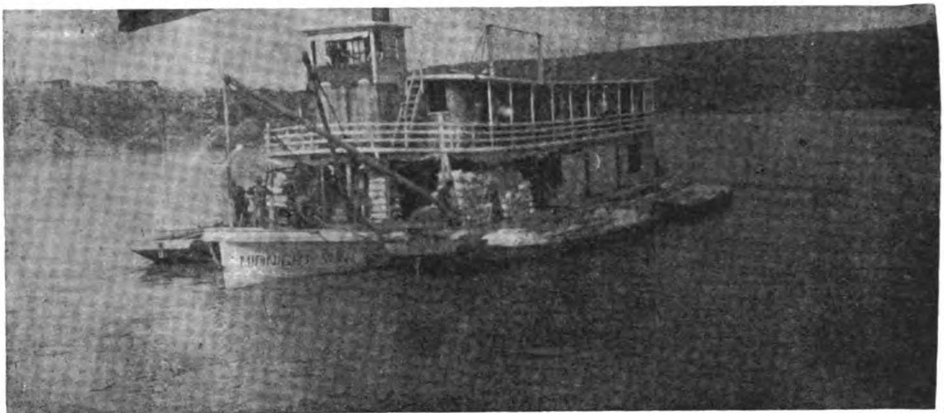
THE GATHERING OF FURS

At the end of March or the beginning of April the trappers leave their hunting grounds and make a journey to the trading post with the result of their winter's toil. In their march through the forest they present a motley throng, not men only, but women, children and dogs. The braves march in front, too proud and too lazy to carry anything but their guns, and after them the squaws either carrying loads or driving dogs attached to sleds laden with meat, furs, household goods and infants. Day by day, they plod along until the post is reached. Sometimes they are met by independent traders or rival companies and are induced to sell their furs. Traders frequently visit the hunting grounds, carrying with them goods, and exchange these for furs. There are many Indians who never visit trading posts but do all their trading with the travelling traders. This is rather the exception than the rule. If our trapper does not dispose of his furs, he will in due time reach the trading post. The trader values each pelt, adds the amount together and informs the Indian that he has fifty or sixty skins. The Indian pays for the goods advanced the past season and then picks out the articles that he needs until he exhausts his supply of small sticks, each representing a beaver skin. Two or three years ago, a trapper with his household arrived at Edmonton. He had a couple of silver fox skins among his furs and so his pack brought a handsome sum. After supplying his wants, he traded what he had left for a baby grand piano. It was placed in front of his tent and his children were allowed the free use of it. When the time came for his return, he took a hatchet and smashed the piano into pieces, declaring that he wanted to know where the noise came from. Having spent his money and with only provisions for the season, he and his family turned towards the forests for another season in the wilderness.

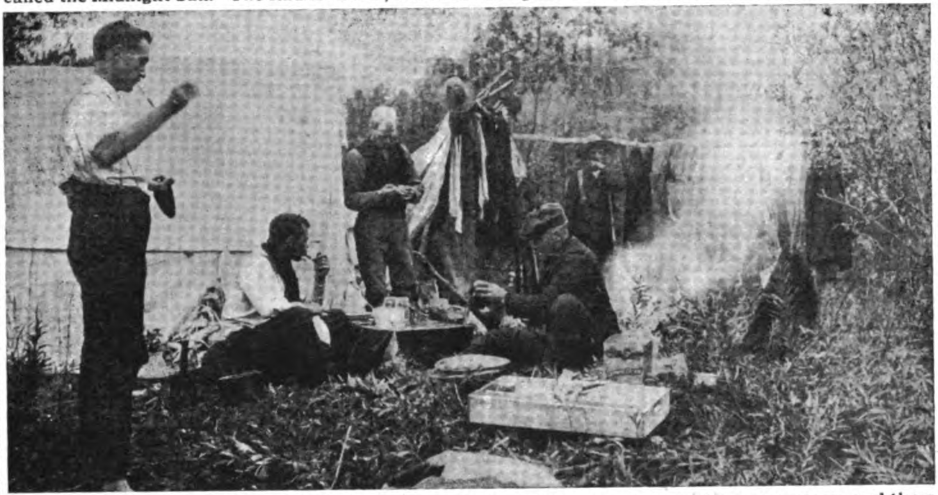
TRADING WITH TREACHEROUS INDIANS

Sometimes traders have to deal with treacherous Indians like the Blackfeet. A Blackfoot, if he thought a trader was deceiving him, would not hesitate to shoot him. Every precaution is taken to protect the trader. There is a large room called the waiting room with a connecting hallway into the trading room. The hallway has a door, and when it slides back, two Indians with their furs enter and the door closes. The braves are admitted into a room divided into two parts. The partition is very strong and stoutly built. It contains a square opening with protecting iron bars. The Indians barter their furs, a door opens and they depart before others are admitted. The trader must always be on the lookout because

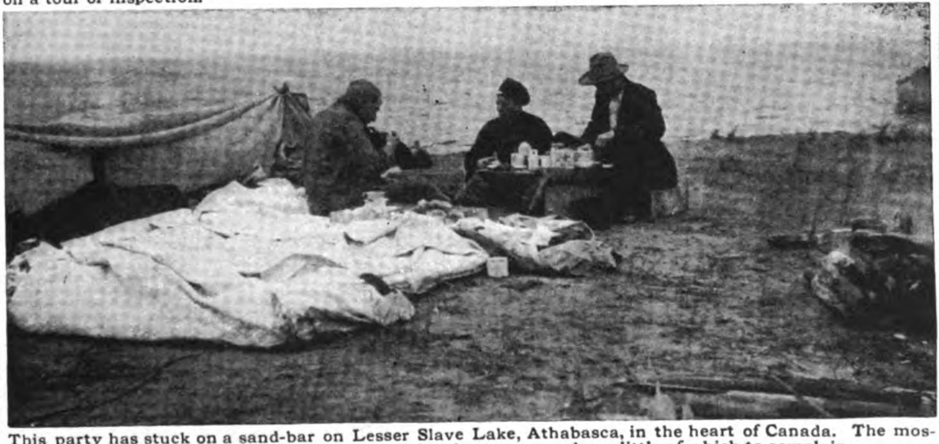
SUMMER IN THE FUR COUNTRY



This steamer on the Athabasca River is carrying the furs nearer those who are to wear them. The boat is called the Midnight Sun. The smaller boats, which are being towed alongside, also are loaded with furs.



Here is another summer picture in fur-land. These campers have every convenience necessary, and there are many more unpleasant ways of spending a summer vacation than accompanying one of these parties on a tour of inspection.



This party has stuck on a sand-bar on Lesser Slave Lake, Athabasca, in the heart of Canada. The mosquitoes are sometimes troublesome, but otherwise these campers have little of which to complain.

Pictures by courtesy of Revillon Freres, New York.

he cannot tell at what moment the Indian trading will be dissatisfied with the exchange and will show his displeasure by deliberately shooting at him. Frequently the Indians after they get back to the waiting room will think that they have been cheated and will at once commence to fill the ceiling with bullets or slash the walls with their hatchets and knives. These days are over but there was a time when trading with the Indians was very exciting and dangerous.

PAY OF THE TRAPPER

A good year's catch per man is about five hundred dollars, but the average is nearer two hundred. The Indian remains at the post until all is spent and then borrows on his catch for the following season. The redskin has a peculiar code of ethics. If he deliberately set his traps and no fur animals come, he considers his debt cancelled and is therefore ready to open a new account. It is impossible for the storekeeper to collect the old debt.

EDMONTON, THE GREAT FUR MARKET

Edmonton, in the province of Alberta, is the greatest market for raw furs in Canada. More than a million dollars in value are shipped yearly from this city. It is the great trading centre for the Hudson's Bay Company. Many independent companies as well as individual traders have their headquarters at this place. The greater part of the furs are sent to London, England, where they are sold at public auction.

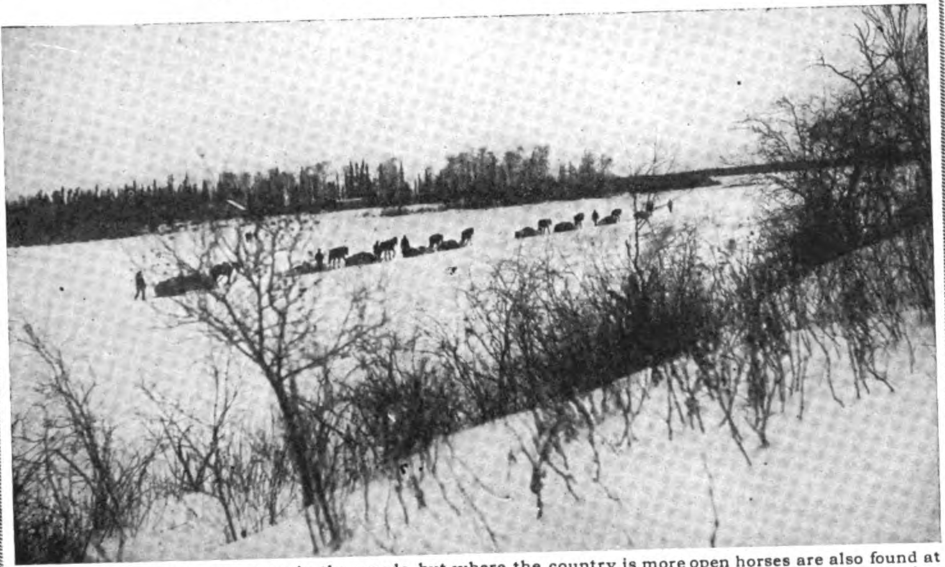
THE ORGANISATION OF THE HUDSON'S BAY COMPANY

There are about three hundred and fifty fur-trading posts in Canada, and of these, two hundred and fifty are owned by the Hudson's Bay Company. The company is a wheel within a wheel, consisting of the company proper, which furnishes the capital stock, and the partnership of the Fur Trade, which is employed to carry out the workings of the business. Under the charter, the supreme control of its affairs is vested in a board consisting of a Governor, deputy governor and committee of five directors, all annually chosen by the stockholders at a meeting held each November at the company's house in London. These officials delegate their authority to an officer resident in Canada called the Governor-in-chief of Rupert's Land, who acts as their representative. His commission extends over all their colonial possessions and his office-holding is unlimited as regards time. The authority of the Governor-in-chief is supreme except during the session of his council, which is held once a year and continues its sittings for two or three days. The Governor is chairman of this council, at which he represents the interests of the Board of Directors in England. The council is composed of the highest rank of officers in the service, called chief factors, whose duty and right is to sit at its meetings whenever their attendance is practicable. Members of the second rank of commissioned officers, called chief traders, when they can arrange to be present are also requested to sit in the council. The chief factors and chief traders together constitute the partnership in what is called the "Fur Trade." Vacancies in its ranks are immediately filled as they occur from the death or retirement of its members, the qualification necessary being a majority of the votes of all the chief factors. The candidates for a factorship are necessarily traders, while those for a vacant tradership are from the ranks of salaried clerks, seldom of less than fourteen years' standing in the service.

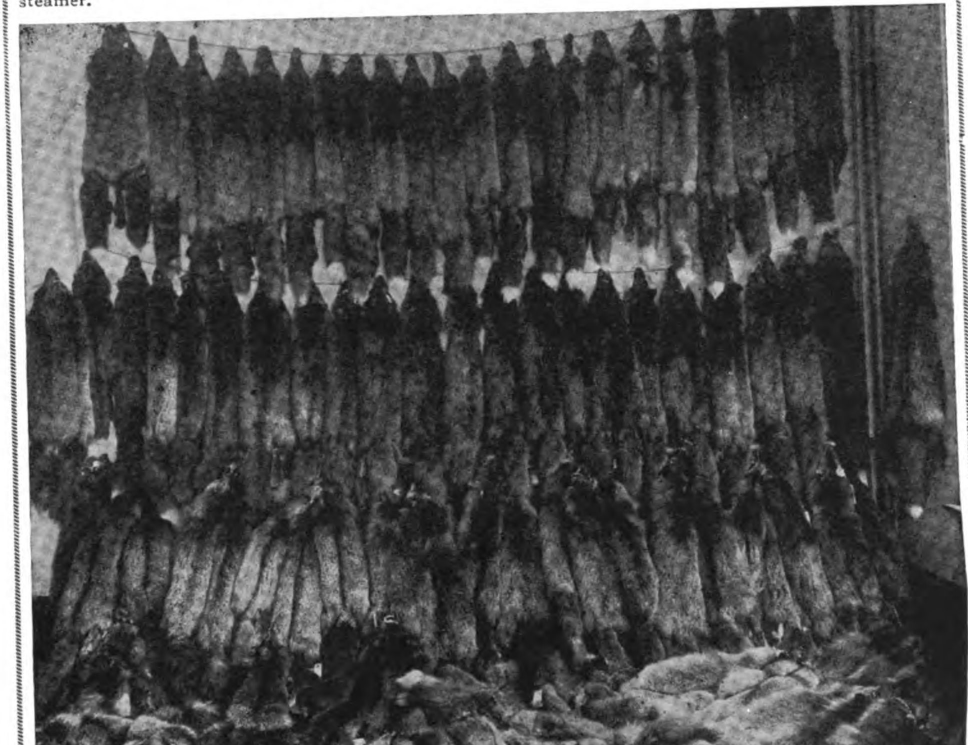
The members of the Fur Trade also called "Wintering Partners" furnish none of the capital stock and receive their commissions merely as the reward of long and faithful service. Their pay is a definite number of shares of stock, never exceeding a certain limit. Of these a chief factor possesses two, and a chief trader one, so that their incomes are directly affected by the fluctuations of the trade. At present the income of a chief factor is about five thousand dollars including house and keep for himself and family, while that of a chief trader is half of that amount.

The partners in the Fur Trade hold their rights as a body in virtue of a grant made in 1834 under which the commissions to individuals are issued. These commissions held from the company entitle the officer sholding them

THE END OF THE TRAIL



The dog sledges are used deep in the woods, but where the country is more open horses are also found at work. Here is a train nearing the outposts of civilisation. These furs will soon be transferred to railroad or steamer.



This is a unique exhibit, the season's catch of silver fox, which, as you are told in the text, is a rare animal. These skins shown here are worth an immense sum, perhaps $100,000, or even more.

Pictures by courtesy of Revillon Freres, New York.

to their share in the profits and all the other privileges that they enjoy.

RECRUITS FOR THE SERVICE

Successful applicants for a place in the Hudson's Bay Company's service are from sixteen to eighteen years of age. They must pass a rigid examination in education, moral character and physical build. The company has found its best recruiting grounds in the Highlands of Scotland. Many are born in isolated glens. They change the land but not the climate, and as for the circumstances, they opened careers for their ambitions. They sign for a term of five years although the direct understanding is that the applicant shall devote his life to the trade. This happens in nearly every instance, as the mode of life unfits him for active duty in any other vocation. When an opening occurs the recruit sails for the company's headquarters at York Factory. His salary at first is one hundred dollars a year with his lodging and board.

THE SERVICE

On arriving at York Factory, he is generally sent to pass the first five or ten years of his apprenticeship in the extreme northern districts of Mackenzie River and Athabasca. The occupations of his first years are those of salesman behind the counter in the trading-shop and an occasional trip with the half-breed traders attached to the post to the various Indian camps in the vicinity for the barter of goods for peltries. A few years pass and he is promoted to the accountant's office. At the accountant's desk the apprentice, now known as a clerk, remains generally until fourteen years of service have passed, unless placed in charge of a fort as chief clerk. During this period, he has been gradually nearing the great forts forming the headquarters of a district. His salary has increased from one hundred to five hundred dollars per annum. His habits of life have become fixed and he has no desire for change. His ambition points but one way, to a higher rank in the service that he has chosen. As a rule he has taken for a wife the daughter of some Indian chief or the half-breed daughter of some official. The company rather encourages this because an alliance through marriage with an Indian tribe will invariably turn towards the fort all their furs.

At the expiration of fourteen years of service, if a vacancy occur, the clerk steps from the ranks of salaried employees into the partnership of the Fur Trade. Upon the assumption of this dignity he is appointed to the command of some important post. Here his duties are a general oversight of the business immediately connected with the establishment and vicinity. In a short time death or retirement opens the way for entrance into the ranks of chief factors, the highest class of officials known to the service. In the exercise of the duties of this office he assumes control of a district in many cases as large as a European kingdom, with headquarters at the largest fort within its limits and a general supervision over all the other posts. He directs the course of trade, erects new establishments, orders the necessary outfits for the year, and in his capacity as chief magistrate of his principality rules supreme. Before 1870, the commissioned officers exercised almost supreme power within their districts. Removed beyond the reach of law, they were a law unto themselves. Their government, though arbitrary, was excellent as far as the Indians were concerned. Any criminal was relentlessly sought out and hunted down. Consequently outrages came to be almost unknown and the posts could have been left unprotected. They were fair and just but severe in their punishment, and gave the country an excellent government.

Fur trading is the oldest industry in Canada. It has held an important place from the days of the French down to the present. The quest for furs did much to explore and civilise the country. In this the great Hudson's Bay Company has performed the greatest services. This company, nearly two hundred and fifty years old, still holds its own against all competitors and seems destined for centuries to continue to furnish the world with a large part of her furs.

LITTLE GOODY TWOSHOES

CONTINUED FROM 5088

All the world must allow that Twoshoes was not her real name. No; her father's name was Meanwell, and he was for many years a considerable farmer in the parish where Margery was born; but he and his wife died, leaving Margery and her little brother to the mercies of the wide, wide world.

Little Margery and Tommy were both very ragged, and Tommy had two shoes, but Margery had but one. They had nothing, poor things, but their love for each other. Their relatives took no notice of them; but Mr. Smith, a very worthy clergyman who lived in the parish where little Margery and Tommy were born, sent for the children. A friend of his ordered little Margery a new pair of shoes, gave Mr. Smith some money to buy her clothes, and said he would take Tommy and make him a little sailor, while Mr. Smith promised to look after Margery.

Next morning the shoemaker came in with Margery's new shoes. She ran out to Mrs. Smith as soon as they were put on, and, stroking down her ragged apron, cried out:

"Two shoes, mamma; see, two shoes!"

And so she behaved to all the people she met, and thus obtained the name of Goody Twoshoes, though her playmates called her Old Goody Twoshoes.

Little Margery was very happy in the home of Mr. and Mrs. Smith. She saw how good and how wise Mr. Smith was, and concluded that this was owing to his great learning, therefore she wanted, above all things, to learn to read. For this purpose she used to meet the little boys and girls as they came from school, borrow their books, and sit down and read till they returned. By this means she soon learned more than her playmates, and devised the following scheme for teaching those who were more ignorant than herself.

She found that only twenty-six letters were required to spell all the words in the world; but as some of these letters are large and some small, she, with her knife, cut out of several pieces of wood ten sets of each of the small ones and six sets of each of the large ones.

Every morning she used to go round with the wooden letters in a basket to teach the children.

I once went with her on her rounds. The first house we came to was Farmer Wilson's. Here Margery stopped, and ran up to the door, giving a tap.

"Who's there?"

"Only little Goody Twoshoes," answered Margery, "come to teach Billy."

"Oh, little Goody," says Mrs. Wilson, with pleasure in her face, "I am glad to see you! Billy wants you sadly, for he has learned all his lesson."

Then out came the little boy, Billy. "How do, Doody Twoshoes?" says he, not being able to speak very plainly.

Yet this little boy had learned all his letters; for she threw down the alphabet all mixed together, and he picked them up, called them by their right names, and put them all in order.

The next place we came to was Gaffer Cook's cottage. Here some poor children met to learn, and all came round little Margery at once; and, having pulled out her letters, she asked the boy next her what he had for dinner.

He answered, " Bread "—for the poor children in many places live on very little indeed.

" Well, then," says she, " set the first letter."

He then put up the letter *B*, to which the next added *r*, and the next *e*, the next *a*, the next *d*, and it stood thus: " *Bread*."

" And what had you, Polly Comb, for your dinner ? "

" Apple-pie," answered the little girl; and so the lesson went on.

The next place we came to was Farmer Thompson's, where there were a great many little ones waiting for her.

" Little Mrs. Goody Twoshoes," says one of them, " where have you been so long ? "

" I have been teaching," says she, " longer than I intended, and am afraid I am come too soon for you now."

" No, but indeed you are not," replied the other, " for I know my lesson, and so does Sally Dawson, and so does Harry Wilson, and so do we all."

And they capered about as if they were overjoyed to see her.

" Why, then," says she, " you are all very good, and God will love you; so let us begin our lesson."

They all huddled round her, and though at the other place they were employed about words and syllables, here we had children of much greater ability, who dealt in sentences, which they set up and read aloud.

Mrs. Williams, who kept a college for instructing little gentlemen and ladies in the science of A, B, C, was at this time very old and infirm, and it was decided that Margery should take up her work. Henceforth she was known as Mrs. Margery.

One day Mrs. Margery brought home a fine raven which she had rescued from the cruel hands of some bad boys. Now, this bird, which she called Ralph, she taught to speak, to spell, and to read. He sat at her elbow, and when any of the children were wrong, she used to call out, " Put them right, Ralph."

She had also a pigeon, which she had taught to spell and read, though not to talk. He was a very pretty fellow, and she called him Tom.

Soon after this a present was made to Mrs. Margery of a little dog, Jumper, and a pretty dog he was. Jumper was the porter of the college, for he would let nobody go out or come in without the leave of his mistress.

One Thursday morning Jumper all of a sudden laid hold of his mistress's apron, and endeavoured to pull her out of the school. She was at first surprised; however, she followed him to see what he intended.

No sooner had he led her into the garden than he ran back and pulled out one of the children in the same manner; upon which, she ordered them all to leave the school immediately, and they had not been out five minutes before the top of the house fell in.

The downfall of the school was a great misfortune to Mrs. Margery, for she not only lost all her books, but was without a place to teach in. But a kind friend had it rebuilt for her.

Mrs. Margery was much esteemed by her neighbours. One gentleman, Sir Charles Jones, had conceived such a high opinion of her that he offered her a considerable sum to take care of his family; but she refused. This gentleman sent for her afterwards when he had a dangerous fit of illness, and she behaved so tenderly that he made her promise to marry him.

The wedding day arrived, and they went to the church. But just as the clergyman had opened his book, a gentleman ran into the church and cried:

" Stop! Stop! "

This gentleman turned out to be Mrs. Margery's brother, who had just come from beyond the sea, where he had made a large fortune, and, hearing of his sister's intended wedding, he had ridden in haste to see that a proper settlement was made on her.

Mrs. Margery, after her marriage, still went on with her good works. She was a mother to the poor, a doctor to the sick, and a friend to all in distress

STORIES FROM THE TALMUD

THE HEIR AND THE WILL

A RICH Jew having died, it was found by his will that he had left all his property to a slave, on the sole condition that the slave should allow the son of the dead man, who was in a distant city, to select just one article from the property.

The slave was delighted with his good fortune, and hurried off to the distant city to inform the son of what had happened. Of course the young man was astonished at his father's will, and greatly grieved. He could not understand why he should have treated him in this way, and complained to a rabbi of his parent's injustice.

"CHOOSE THE SLAVE," SAID THE RABBI

But, having expected sympathy and comfort in his distress, the young man was amazed at the rabbi's words.

" What a wise man your father was !" said he. " This will shows that he was wonderfully far-seeing. By it he has preserved all his property to you. Had he left it to you in his will you would have received little of it, for, the heir being such a distance away from home, the slave would have plundered the estate. But your father bequeathed everything to his slave, knowing that the man would take care of the property when he believed it to be his own."

" But how does all that benefit me when the property is left away from me ? " asked the young man in surprise.

" Do you not know that all a slave possesses belongs to his master ?" said the rabbi. " You may select just one article. Choose the slave, and then the whole of the property will be yours."

This the young man did, and ever blessed the far-seeing wisdom of his father which had saved for him his inheritance.

THE DINNER AT THE INN

A YOUNG man called at an inn, and was invited to sit down to dinner with the landlord, his wife, two sons, and two daughters. Five pigeons and a fowl were placed upon the table, and the young man was asked to carve and serve. Dividing one pigeon between the two sons, another between the two daughters, and another between the landlord and his wife, he kept two birds for himself.

The host was surprised at this method of distributing the food, but when the pigeons were eaten he asked the young man to carve the fowl. The youth did so, giving the head to the landlord and his wife, a leg to each of the sons, a wing to each of the daughters, and took the body for himself. The landlord asked for an explanation.

" I have done the best I could to make things equal," said the young man. " You, your wife, and one pigeon make three ; your two sons and one pigeon make three ; your two daughters and one pigeon make three ; and I and two pigeons make three. With regard to the fowl, I gave the head to you and your wife because you are the heads of the family. I gave to your sons the legs, because they are the supports of the family. I gave to your daughters the wings, because they will marry, take wings, and fly away from your home. I took the body of the fowl for myself because it looks like a ship, and in a ship I came here, and in a ship I hope to return to my home."

THE YOUNG MAN WAS ASKED TO CARVE

THE BRAVE LITTLE DOG OF THE WOOD

BRISQUET was a poor woodcutter, who lived in the Forest of Lyons, with Brisquette, his young and pretty wife, and Biscotin and Biscotine, his two little children.

Biscotin was a merry little brown-haired boy of seven years of age, and Biscotine was a charming maiden with bright blue eyes and golden hair, who was not quite six years old. The forest in which they lived was very wild and lonely, and their mother would never let them go farther than the shed at the end of the garden, where their father stored his wood, lest some wolf should attack them, for there were plenty of these fierce animals about.

Bichonne, a grey-coated little dog, with a red nose and soft brown eyes, was their only playmate. But he was so lively and good-natured that they never wearied of playing with him all day long on the green space before the cottage door.

One winter night Brisquet was late in coming home, a most unusual proceeding. " Run down to the shed, my darlings," said Brisquette to her children, " and see if you can find your father there."

Biscotin and Biscotine ran out, hand-in-hand, and went merrily down the path leading to the shed. Bichonne, of course, began to follow them ; but their mother called the dog back, saying :

"No, Bichonne! Wait till they return, and if your master is still in the forest, you must go alone and look for him."

Biscotin and Biscotine did not find their father in the shed, and they were frightened at his absence.

" Oh, daddy's lost—daddy's lost ! " said the little boy. " I will go into the forest and find him, or let the wolves eat me ! " And he ran into the wild, dark forest, and Biscotine took his hand and went with him.

Shortly afterwards, however, the father returned to his cottage by another path.

" Where are the children ? " he exclaimed, surprised at their not coming to greet him.

" They went as far as the shed to search for you," said his wife, looking startled. " They must have gone into the forest. Oh, the wolves—the wolves ! " Brisquet threw down his load of wood, and seized his axe, and looked round

THE PLUCKY LITTLE DOG WOULD NOT LET THE WOLF COME NEAR THE CHILDREN for Bichonne. But as soon as the woodman had appeared without his children, the little dog had barked wildly, and dashed off into the forest.

Brisquet was very angry because his dog was not there to follow him at the very moment he needed his help most.

"I ought not to have had a little mongrel like him!" he exclaimed. "With a good thoroughbred I could easily follow the track of the children. Now I don't know what path they took."

But, on going a little way into the forest, he heard the sound of barking, mingled, it seemed, with the cries of children. Tearing wildly up to the spot, with his great axe lifted ready to strike, he saw a sight that filled him with joy and dismay. Biscotin and Biscotine were crouching together underneath a tree, and a great grey wolf was trying to spring upon them. But little Bichonne would not let the wolf come near the children. He was hardly a fourth of the size of the fierce, hungry animal; but he fought with such pluck and quickness that the wolf was unable to reach the children before their father arrived. With one blow from his axe Brisquet killed the wolf, and, taking the poor little wounded dog in his arm, he led Biscotin and Biscotine safely home.

THE MYSTERIOUS PORTRAIT

In the little Japanese village of Yowcuski a looking-glass was an unheard-of thing, and the girls did not even know what their faces looked like except on hearing the description their lovers gave of their personal beauty.

Now, it happened that a young Japanese one day picked up in the street a small pocket hand-mirror.

It was, of course, the first time in his life that Kiki-Tsum had ever gazed on such a thing. He looked at it, and, to his intense astonishment, saw the image of a brown face, with dark, intelligent eyes, and a look of awe-struck wonderment on the features.

"It is my sainted father. How could his portrait have come here? Is it, perhaps, a warning of some kind?"

He folded the precious treasure up in his handkerchief, and put it in a large pocket of his loose blouse. When he went home that night he hid it away carefully in a vase, as he did not know of any safer place. He mentioned nothing of the adventure to his young wife, for, he said: "Women are curious, and then, too, sometimes they are given to talking."

For some days Kiki-Tsum was in a great state of excitement. He was thinking of the portrait all the time, and at intervals he would leave his work and suddenly appear at home to take a look at his treasure.

Now, in Japan, as in other countries, mysterious actions and irregular proceedings of all kinds have to be explained to a wife. Lili-Tsee, his wife, did not understand why her husband kept appearing at all hours of the day. And so Lili-Tsee fell to watching, and she noticed that he never went away until he had been alone in the little room at the back of the house. She hunted day after day to see if she could find some trace of anything in that little room which was at all unusual, but she found nothing.

One day, however, she happened to come in suddenly, and saw her husband replacing a rose-leaf vase. The moment he had gone she was upon a stool like lightning, and in a moment she had fished the looking-glass out of the vase. Then the terrible truth was clear. What was it she saw?

Why, the portrait of a woman! And she had believed that Kiki-Tsum was so good and so fond and so true!

Suddenly a fit of anger seized her, and she gazed at the glass again. The same face looked at her; but she wondered how her husband could admire such a wicked face.

She had no heart for anything, and did not even make any attempt to prepare a meal for her husband. When, later on, Kiki-Tsum arrived, he was surprised to find nothing ready for their evening meal.

"So this is the way in which you treat me, before we have been married even a year! What do you mean, Lili-Tsee?"

"What do I mean? What do you mean? The idea of your keeping portraits in my rose-leaf vase! Here, take it and treasure it, for I do not want it. The wicked, wicked woman!"

"I cannot understand," he exclaimed. "Oh, you can't?" said she. "I can, though. You like that hideous, villainous-looking woman better than your own true wife!"

"Lili-Tsee, what do you mean? That portrait is the living image of my poor dead father. I found it in the street the other day, and put it in your vase for safety."

"Hear him! He wants to tell me I do not know a woman's face from a man's," replied Lili-Tsee, more angrily.

THE PRIEST TOOK THE GLASS IN HIS HAND AND LOOKED AT IT EARNESTLY

Things really began to look serious. It seemed as if their married life, which had hitherto been passed in happiness, was to be completely spoiled and made miserable by this mysterious portrait.

Kiki-Tsum was wild with indignation. The accusation of his wife was perfectly ridiculous. Of course the portrait was not that of a woman, but of his father. It was impossible that he could be mistaken. The loud, angry words attracted the notice of a Japanese priest who was passing. He stopped and listened for a moment. Such a quarrel, he thought, must not be allowed to continue. It was probably some slight misunderstanding which he would soon be able to put right.

"My children," he said, putting his head in at the door, "why this unseemly anger? Why this dispute?"

"Father, my wife is mad."

"All women are so, my son, more or less. You were wrong to expect perfection. It is no use getting angry."

"My husband has a portrait of a woman hidden in my rose-leaf vase."

"I swear that I have no portrait but that of my poor dead father."

"My children, show me the portrait."

The priest took the glass and looked at it earnestly. He then bowed low before it, and, in an altered tone, said:

"My children, settle your quarrel and live peaceably together. You are both in the wrong. This portrait is that of a saintly, venerable priest. I know not how you could mistake so holy a face."

He blessed them, and then went away, carrying with him the glass to place with other precious relics of the church.

STORIES OF GREECE AND ROME

THE TWELVE LABOURS OF HERCULES

As well as cultivating all that is beautiful in art and letters, the ancient Greeks worshipped sheer physical strength. High in honour among their heroes was Hercules, whom they adopted as the patron of strength. "The labours of Hercules" has become a well-known phrase, and the separate titles of the labours are often quoted to-day. "Cleansing the Augean stables," for instance, is another way of speaking of the clearing up of some nearly hopeless muddle. In his youth Hercules roused the jealousy of Eurystheus, King of Argolis, into whose power the gods placed him for a long term of service. Eurystheus gave Hercules the following tasks to perform.

THE SNAKE WITH A HUNDRED HEADS

The hydra was a monstrous water-snake with seven or nine heads, which grew again as fast as they were cut off. This fierce monster devastated Argolis, dragging both men and beasts into the swamp where it lived, and there strangling them. Hercules was aided by his friend Iolus, who applied a lighted firebrand to the stumps immediately after Hercules had cut off the heads with his sword. They both dipped their arrows in its poisonous gall so that the wounds they gave should be incurable.

SLAYING THE LION

A dreadful lion was terrifying the inhabitants of a district in Argolis, coming out of the forest from time to time and killing the inhabitants of the neighbouring villages. So powerful was the beast that none dare attack it, and no sword or arrow could pierce its skin; but Hercules seized the lion in his powerful arms and forced it on its back. Then he knelt upon it and strangled it with his hands. The hero removed its invulnerable skin, and ever after that he wore it round his own shoulders.

THE YOUTHFUL HERCULES

THE CAPTURE OF THE SACRED STAG

There lived on the Ceryneian Mountain a wonderful stag that was sacred to Diana, the goddess of hunting. Its horns were of pure gold, its hoofs were of brass, and it was so fleet of foot that no man had ever been able to catch it. Hercules was commanded to capture it and to bring it unhurt to Eurystheus. This he succeeded in doing after a full year's chase through the forests that in those days almost covered the south of Greece. As he was returning, the wrathful Diana met him, but she was appeased when he told her his story.

CLEANSING THE STABLES

One of the labours of Hercules has given a proverb to the world, for when we wish to call a task almost impossible of accomplishment, we speak of it as like "cleansing the Augean stables." Augeas was King of Elis, and the owner of some 3,000 head of cattle. The stables in which these cattle lived had never been cleansed, and were in a terrible state of filth, so that the task of cleaning them out in one day seemed impossible even for Hercules. Yet he easily effected it by breaking down a part of the wall, and diverting through the stables a river that flowed close by, thus washing out thoroughly the horrible mire and filth within.

THE ARCADIAN BOAR

The neighbouring state of Arcadia was being ruined by a huge boar which came down from Mount Erymanthus, and spared neither man nor beast. Hercules was accordingly sent to capture the beast. The boar had hitherto defied all the attacks and ruses of the Arcadian shepherd folk, but when the terrible monster saw Hercules it turned and fled up the snow-clad mountains, with Hercules in full chase. He succeeded in bringing it to Eurystheus, however, who was so terrified at the sight of it that he crept into a cask to hide.

THE BIRDS WITH THE BRAZEN WINGS

The marshy forests around Lake Stymphalis, in Arcadia, were infested by some voracious birds whose wings, talons, and heads were of brass. These birds fed on the flesh of men and animals. When sent to slay them, Hercules was puzzled how to get near them, so inaccessible was their nest. He therefore begged Minerva, the goddess of brave deeds, to help him, and she gave him a brazen rattle. Hercules stood on the shores of the lake and made the woods re-echo with a terrible din. The startled birds flew out into the open, and Hercules shot them one by one with his poisoned arrows.

THE MAD BULL OF CRETE

MINOS, King of Crete, an island to the south of Greece, had once promised to sacrifice a huge bull to Neptune, the god of the sea. Because of its great size and beauty, however, Minos had kept it for himself. The bull went mad and began to destroy the crops of the island. Hercules captured it, and brought the raging beast alive to Mycenæ as his seventh labour, but King Eurystheus foolishly let it loose, and it crossed the Isthmus of Corinth and ravaged the valley of Marathon, in Attica.

THE MAN-EATING HORSES

DIOMEDES, King of Thrace, was so cruel that he was wont to throw all strangers to some wild horses, which devoured them. Hercules, with some of his brave friends, sailed to Thrace, attacked and captured the tyrant, and gave him to his own horses to eat. Hercules then brought the horses over the sea to Mycenæ, and drove them up into the mountains, where they were torn to pieces by other wild beasts.

THE GIRDLE OF THE AMAZON QUEEN

IN the ninth labour Hercules had also to make a long journey. This time he was sent to fetch the girdle of Hippolyte, the queen of the warlike Amazons, who dwelt in the land of Scythia, in the south of the country we now call Russia. Some say that he killed the queen after a hard fight, and others that he only captured her and gave her in marriage to his friend Theseus. At any rate, he succeeded in his object of bringing the famous girdle back to Eurystheus.

THE BATTLE WITH THE GIANT

FAR away from Greece, in the unknown western sea, there was an island called Gades. Traders brought strange tidings thence of a three-bodied giant named Geryon, who owned beautiful herds of cattle, and a two-headed dog to watch over them. Hercules was sent to fetch these cattle. Many are the tales told by the Greek poets about this journey—how, for instance, scorched by the heat, he tried to shoot the sun-god, who, admiring his audacity, gave him a golden bowl, wherein he sailed to the island, passing through the Straits of Gibraltar, the rocks looking down upon which were called the Pillars of Hercules.

The hero slew the giant's herdsmen and his two-headed dog, but just as he was driving off the cattle Geryon came up in hot haste and seized him. After a terrific struggle Geryon was defeated. Even then all was not peaceful sailing homewards, for in Italy a fire-breathing giant called Cacus stole some of the herd, and hid them in a cave, dragging them backwards, so that their tracks should deceive their owner. Hercules, however, heard the lowing of the cattle, squeezed Cacus to death, and set them free.

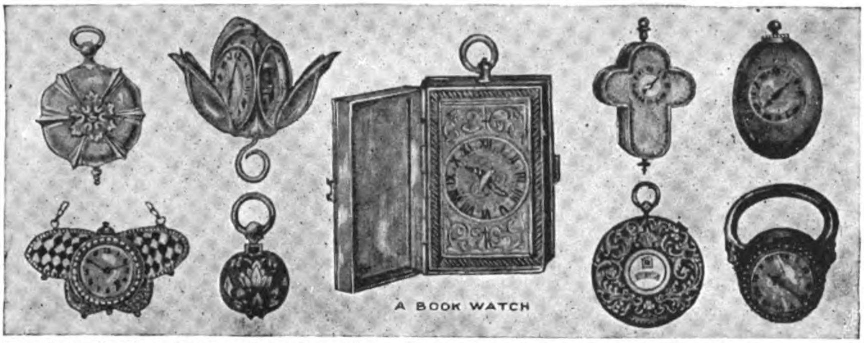
THE GOLDEN APPLES

IN a beautiful land in the west of Africa lived some nymphs called the Hesperides. It was their duty to guard the fruit which Mother Earth had presented to the goddess Juno as a bridal gift. A sleepless dragon guarded the plantation where grew the golden apples, and the way was full of difficulties that led to it. After many wanderings and terrible fights with giants and tyrants, Hercules succeeded in catching Nereus, one of the gods of the sea, who changed into all kinds of shapes in his endeavours to escape from the strong hands that gripped him. Finding all his wiles of no avail, he resumed his natural shape, and sent Hercules to Atlas, who agreed to bring the fruit, on condition that Hercules supported the heavens while he was away.

THE DOG OF THE UNDERWORLD

AT the entrance to Hades, the abode of the dead, there kept guard a three-headed dog named Cerberus, whose duty it was to prevent the living from entering and the dead from escaping out of the shadow-kingdom. Pluto, the dark-visaged King of the Underworld, gave Hercules permission to take the dog up into the light, provided that he did not use weapons. This Hercules, by his mighty strength, succeeded in doing, and he also led it back uninjured. Hercules was then freed from his labours, and went about the world doing many brave and noble deeds, and has ever since been honoured as the best type of physical strength.

THE NEXT STORIES ARE ON PAGE 5203



Here is a collection of very curious old watches. The oval watch at the top right-hand corner belonged to Oliver Cromwell, and underneath it is a watch fitted to a finger-ring that was once George the Third's.

WHAT MAKES A WATCH GO?

CONTINUED FROM 5024

THE great law about power and energy, which we so often have to refer to. gives us the answer to this question. There is power in the spring, which gradually communicates itself to the wheels of the watch, turning them, and making them move the hands that we see. After a time, perhaps hours, or even days, the watch stops, because the power of the spring has come to an end. It has spent itself in moving wheels, in moving the hands of the watch, in overcoming the friction at the places where the wheels and the hands are balanced, or pivoted, and in moving the air in the watch and overcoming its resistance.

As no power can come from nothing, every imaginable kind of watch or clock must, sooner or later, have fresh power put into it.

The power was put into the spring when the watch was wound up. We wound it with our muscles, spending force obtained from food, which, in its turn, obtained the force from the sun. So the sun really drives the watch. When we wind a watch, we feel that we are pressing against something. If it has quite run down, the first turn causes little effort to our fingers, but the last turns need more. What we are doing is simply coiling a spring tightly. It uncoils itself in a regular way, with the help of what is called a balance-spring, and so gives to the wheels of the watch the power we put into it. We can only say that when the spring is bent there is something in the strained arrangement of its parts which is the equivalent of power, and which can be transformed into power.

WHAT KEEPS A CANNON-BALL FROM FALLING TO THE GROUND?

Not only does the cannon-ball not fall to the ground at once when fired, but it always travels in a curve of a certain kind, and all things travel along paths of this particular kind when they are thrown forward.

The path taken is the result of the working together of all the forces that act on, or in, the ball. If the ball were simply allowed to roll from the mouth of the gun, it would fall at once to the ground, for the only force then acting upon it to any extent would be the pull of the earth.

But when the ball is shot from the cannon, it leaves the cannon in a certain direction and with a certain amount of force, and though Newton's law of gravitation says that the earth is pulling the ball, his first law of motion says that every moving thing tends to move onwards in the same straight line at the same speed for ever.

The actual path of the cannon-ball is the result of the acting together of these two forces. Sooner or later gravitation gets the upper hand, especially as the resistance of the air helps it; but for every moving thing—a cannon-ball, or an atom of gas in the air, or anything else—there is a certain speed at which it would leave the earth altogether.

WHY DOES IT TAKE MORE POWER TO STOP A TRAIN THAN TO START IT?

We might extend this question by asking why it takes more power to stop the train the faster it is going. We find, indeed, that the power required to stop the train depends on the mass of the train, and on its speed. The greater these are, the greater is the power in the train, and the greater will be the power that is required to stop it, for this must be exactly equal to the power in the train.

When a train is at rest, the power required to start it depends simply on the weight, or, to use the best word, the mass, of the train. We all know that it takes more effort to move a heavy thing than a light one. We know, too, that it is one matter to let a heavy thing rest on the foot, and another matter to let it fall on the foot; and the greater the height it falls from, the more it hurts. That is because the greater the height from which it falls, the faster it is moving when it strikes the foot.

Such a case teaches us that movement adds power to anything; and that is so, for movement is itself a form of power. More than that, the greater the weight of the moving mass, the greater is the power that was required to move it, and therefore the greater is the power required to stop it.

HOW DOES SEAWEED TELL US WHAT THE WEATHER IS GOING TO BE?

Of course, seaweed does not foretell the state of the weather in any direct way; it merely tells us something which gives us some guidance as to the weather. A barometer, also, does not tell us about the weather itself, but, like the seaweed, it indicates something that has to do with the weather. As the barometer and the seaweed tell us different things, we should perhaps be able to know more about what the weather was likely to be if we used them both, and then noticed what usually happened when they did certain things. The barometer simply tells us how heavy the air is at any given time, and from that fact we can make certain guesses, more or less likely to be right, as to what will happen. The barometer tells us nothing else at all, even though we often call it a weather-glass.

The seaweed tells us nothing about the pressure, or heaviness, of the air at any given time, but it tells us about the moisture of the air and about that only; or perhaps, in a way, it also tells us a little about the warmth of the air, though we can feel that for ourselves.

When a piece of seaweed feels very damp, it tells us that there is a good deal of moisture in the air, and rather more than the air can well carry, so that it is glad to unburden itself into the seaweed as far as possible. Now, that means that the air may very likely unburden itself soon on a bigger scale by means of rain. When the seaweed is dry, it means the opposite of this.

IS IT A SIGN OF RAIN WHEN THE SMOKE IS BLOWN DOWN THE CHIMNEY?

It may be, or it may not be. If we think about this question for ourselves, we shall see that no one could answer simply Yes or No to it, for so many different things come into it. The travelling of smoke up a chimney and of wind down it are complicated matters.

We may be sure that when the wind blows down the chimney the air is not still, and wind very often brings rain, for wind is moving air, and this air may be laden with moisture, which is apt to fall as rain.

But though wind and rain often go together, so that rain is more likely to fall when the smoke is blown down the chimney, yet there are winds which are usually dry, and bring no rain with them. Different chimneys smoke with different winds, and some smoke with all winds, and some with none; so, plainly, it is impossible to answer this question, except in a general way.

WHY DO THE TREES NOT DIE IN WINTER LIKE THE FLOWERS?

This question depends upon a mistake as to the nature of trees and flowers. A flower is only part of a plant; it is a special part, or organ, made by the plant for a special purpose, which is the production of seeds to produce new plants. We must not speak of the flower as if it were a plant. It happens to be conspicuous because the help of insects is required in the preparing of seeds, and the flower is a flag made to attract the insect's attention. But there are many flowers which do not require the help of insects. These flowers need not be conspicuous. All trees have flowers, and in most cases they are of the inconspicuous kind.

Once, however, we know that trees have flowers, we do not need telling that these flowers die in the winter, just like the flowers of other plants. But the plant or tree does not die because the flower dies. The tree goes on living, and will produce new flowers next year; and that fact may also be true of many of the smaller kinds of plants.

HOW DEEP IS THE DEEPEST PART OF THE SEA?

The Pacific Ocean is now believed to be deeper, on the whole, than any other sea, and the average depth of the greater part of it is said to be about two thousand five hundred fathoms. A fathom is six feet, so we can easily calculate this for ourselves in yards or miles, as we please.

But far greater depths than this have been recorded within recent years, not to mention cases where bottom has not been touched even at very great depths. It is probable, and easy to remember, that the very greatest depths of the sea about correspond to the greatest heights of the mountains on land, and we may put down such distances as five or six miles as roughly representing what we may believe to be the very greatest depths of the sea.

The very interesting question we must ask is: How near do such depths go toward piercing right through the earth's crust? The answer is that these abysses can only represent places where the earth's crust is, say, one-eighth less thick than it is elsewhere.

HOW DO MEN FIND OUT THE DEPTH OF THE SEA?

The simplest plan is by letting down a weighted vessel by a rope, marked off at intervals, and when it is felt that the vessel has touched the bottom, it is pulled up again to see what has got into it.

But this will do only for very shallow depths, comparatively. When it comes to sounding great depths, we must first abandon the rope and use a wire, as was first done by Lord Kelvin. The wire rubs against the water far less than the rope, and when we are dealing with lengths of miles, that is an important matter. Also, when great depths are being sounded, it is hopeless to expect to drag up the weight that has sunk the wire.

So devices are used that will let the weight go at the bottom, and perhaps some tiny, light vessel can be left at the end of the wire, not too heavy to pull up, which will carry some evidence of the life that exists at the bottom. Sea-sounding is a study that has been greatly improved lately, and it has taught us very much about the strange powers of life under hard conditions.

DO THE PEOPLE AT THE POLES SPIN ROUND LIKE A TOP?

We may now be very certain that there are no human beings at either the North or the South Pole, but that does not make the question about the spinning any less interesting. If we think of a spinning top, we shall see that all parts of it move round in the same time, but that different parts are moving at different speeds, for those near the bulgy part of the top—near its "equator"—have farther to go in the same time than those near its "poles."

Now, in the case of the spinning top that we call the earth, it is necessarily true that all parts of it complete a revolution in twenty-four hours. This must apply equally to a man standing beside the North Pole, or a man at the Equator, for the earth moves all in a piece—not like the sun or Jupiter, different parts of which lag behind the others.

The man at the Equator is being whirled along at the rate of about a thousand miles an hour, but a man actually standing on the North or South Pole, on the point of the very axis of the earth, is simply being turned completely round once in twenty-four hours, while his brother at the Equator has been whirled through 25,000 miles. So, though at the Poles people would spin like a top, they would notice nothing, for the spinning would be so slow.

WHY CAN WE SEE IN THE LOOKING-GLASS THINGS THAT ARE NOT IN FRONT OF IT?

We see things in the glass because it reflects to our eyes the light which first fell upon them, and which they then reflected to the glass. This it does according to the great law of the reflection of waves, like those of light. The law is that the angle at which the wave approaches the surface which reflects it is the same as the angle at which the light will leave that surface. This law is strictly followed by all rays of light that strike the mirror, and if our eyes are rightly placed we can catch the rays as they are reflected from the glass to our eyes.

If we think of an indiarubber ball instead of a ray of light, we shall understand this quite easily. Anyone standing far to one side of the mirror might throw a ball at an angle against it, and we know that it would come off the mirror at a corresponding angle. If now, instead of a ball thus reflected, we think of a ray of light, we shall see how it is possible for the mirror to show us things that are not immediately opposite to its surface.

WHY CANNOT WE GRASP A BAR TIGHTLY WHEN WE FIRST WAKE UP?

When we are taken captive by intense laughter, we cannot hold tightly to things, and the same is true in some other states of mind, as when we just wake up. Now, in all such cases we know that the necessary muscles are there, as large as ever, and so we may be sure that the explanation is somewhere else.

It might be in the nerves that carry the orders to the muscles, but if we consider what it means to be just wakened, or to be laughing very heartily, we shall agree that the key is to be found in the brain, for plainly the brain is in an unusual state in both these cases.

Further, it is the part of the brain concerned with the will that is at fault. During sleep the willing parts of the brain are at rest, and are only very scantily supplied with blood. Not until we are wholly awake do the centres for will get into action, and till then our voluntary acts are feeble, though acts not under the will, such as the beating of the heart, go on as well as ever.

In intense laughter the centres of will are starved of energy, which is being drained away very quickly in expressing our feelings. That is why intense laughter leaves us exhausted.

WHY DO OUR EYES SPARKLE WHEN WE ARE MERRY?

People are not at all agreed as to what really happens when we say that someone's eyes are "sparkling." We all know that something happens in the eyes of people when they are delighted, and we know that it looks as if they shone, or something shone through them or from their surface. But if we watch very carefully, whenever our friends give us a chance, we shall find that there is more to notice than we thought.

Probably it is not the eye at all, in itself, but the eyelid that makes the difference. When we express merriment, the chances are very great that, whatever things look like, the effect is really obtained by the moving of some muscle or other.

In this case, people who have watched carefully declare that the eyelids make little, quick, lively movements, which attract the attention to the eye. Every time the eyelid falls it brushes a fresh tear over the eyeball, so that the surface of it is kept supplied with an unusual amount of fluid, and glistens for just the same reason that it glistens when we cry. But it is the eyelid that makes the difference, and not the eye at all, and this really causes the sparkling.

WHY MUST THE CLAWS OF CAGED BIRDS BE CUT?

Such things as bristles, hair, teeth, claws, and nails behave differently in various animals, according to the kind of use they are likely to be put to. The rule, on the whole, is that when any of these things are liable to be used constantly in such a fashion as to rub them away, they keep on growing continuously throughout the life of the animal.

Our own teeth do not grow continuously, but the teeth of animals often do so. For instance, a hare may die of starvation because it has lost one of its teeth, and the tooth in the other jaw, opposite it, having nothing to rub against, grows and grows, and at last forces the poor creature's mouth open and so kills it by starvation.

Claws and teeth follow the same rules in many ways, for they belong to the same class. A bird's claws are meant to be constantly used. When we keep birds captive, and feed them without work on their part, the claws go on growing because they are no longer worn away by use, and the friction, or rubbing down, which that involves, so they require to be cut by us.

WHAT MAKES THE KNOTS IN WOOD?

We know that knots are very common in woods of certain kinds, and in specimens which are good, and show no signs of disease. Therefore, knots are natural to these woods, and must have some purpose. The wood that makes them is extremely hard, as we know well in carpentering, and this hardness is explained when we learn that knots are, as a rule, simply hard places where branches are coming off from a larger stem. At such a place extra strength and firmness are naturally required.

In many trees, such as beech, and elm, and cedar, there are knots found at the surface of the woody part of the stem, and these have really been formed in the bark. They began their existence meaning to be buds, but have not gone on as they might have done, and have really come to nothing.

These baby buds, as they might be called, stop their development and, being pressed upon by the parts around them, they become very firm and hard. If they are cut across, we find that they are made of circles of woody material laid, or packed, very closely together.

WHY IS IT THAT INK STAINS, WHILE MILK AND WATER DO NOT?

Water does not stain because it contains nothing that can stain. It may produce a mark because, where it falls, it may wash out colouring matter from a fabric, as in the cover of a book, but in water there is nothing melted or hung—dissolved or suspended, to use the proper words—that the water can leave behind where it falls. Milk has a number of tiny balls of oil hung in it, and in falling upon anything it is apt to leave behind a certain number of these balls of oil, which we call cream; and these have a great way of catching dirt, as all oil has.

The case of ink is quite different, for this is water containing a number of coloured things melted in it, among them salts of iron—a metal which has this peculiarity, that nearly all its salts are very highly coloured. There is one particular salt, or mixture of salts, of iron that is deeply coloured. It is called Prussian blue and is often used in ink.

Ink stains because when this solution, as it is called, of salts is exposed to the air, the water flies away into the air, and the colouring matter is left dry, staining the paper, or the tablecloth, or whatever it may have fallen upon.

DOES A SOUND GO ON FOR EVER?

There is a true sense in which everything goes on for ever, and there is an equally true sense in which nothing goes on for ever. Nothing is destroyed and nothing is without everlasting consequences. But it is no less true that nothing goes on for ever *as it was*; for everything changes, and that is what the word evolution means—that everything always changes in an orderly way, though nothing is ever lost or destroyed.

No sound lasts for ever as a sound. It dies away and is heard no more. We may be watching it by scientific instruments which are more delicate than our ears, but after a time they will certainly record the fact that the sound is no more. The waves that made it have been smoothed away.

But all waves, of whatever kind, are made by power, and contain the power that made them; and, because no power is ever lost, this has to be accounted for when sound ceases. We could trace it in the movement of particles of air, and of other things; if we knew enough we could trace the doings of this power in our own ears, and we could also show that a certain amount of heat was produced. The sound ceases, it is true, but its effects do not; they go on for ever.

HOW CAN SOUND COME INTO A ROOM THROUGH A WALL?

When a sound wave, travelling in the air, reaches a wall, it communicates itself to the wall, which is thrown into waves of exactly the same shape and number in each second, but of rather smaller size, for a little power is lost in transferring the waves from one thing to another.

The waves travel on through the new medium, as it is called, and then are conveyed by it to the air on the other side of it, just as the head of a drum, when beaten, shakes the air next to it into waves. In this second transference back to air again, a certain amount of power is lost, and so the sound is a good deal weakened by having to pass through the wall.

Of course, the extent of this weakening will depend on the thickness and on the material and structure of the wall. If we have materials like wool or sawdust or heavy curtain-hangings, which vibrate very badly and with much difficulty, they will absorb most of the sound wave and it will become faint.

WHY DOES THE PRICE OF BREAD CHANGE?

Bread has, on the whole, been getting dearer for many years past, and there can be no doubt that, whatever our politicians do, it will get dearer still for many years to come. Sometimes the price of bread depends upon accidental reasons. For instance, somebody in Chicago buys up a great quantity of wheat until he has the command of the market, and then sells it at high prices.

But, apart from this, wheat is getting dearer because the wheat-eating population of the world is increasing much more quickly than the world's supply of wheat. This is a very serious matter, which must have tremendous consequences. Many countries produce only a tiny proportion of the wheat they eat.

Great quantities of wheat are sent from America, but the population of America is increasing so much more quickly than its wheat that every year it is having less wheat to spare for export; and it is possible that, if things go on as they are now, in twenty years, or less, America will be sending no wheat abroad, but will be keeping all she has to feed her own people with.

This, of course, means that bread will get dearer, and it will also mean that Europe must grow as much wheat as it possibly can.

WHY ARE WE NEVER SATISFIED?

There are a certain number of people in the world who *are* satisfied. They are to be found more especially in the East; but among the more active races of mankind it is scarcely possible to meet anyone who is satisfied. Even those who are contented look forward to a better life beyond this world. Now, we are always told that we should be satisfied, and that it is a great mistake always to go on striving and striving, and never to be content.

But it is one of the highest marks of human nature at its best that it always goes on, and that, whatever it attains, it always sees that there is something better beyond. So someone invented the phrase "divine discontent" to express the splendid longing that is in the heart of man. This becomes divine when the longing is not for ourselves, but for others and for the future of mankind.

If we carefully study the development of life in the world, we find that this quality of not being contented, this power to form a vision of the future and to try to realise it, is the great mark of mankind at its best; and it is a blind and foolish mistake to complain that people are never satisfied. What we should try to do is to stop the foolish and trifling dissatisfactions around us, and to replace them by something better.

We often speak of the Founder of Christianity as "gentle Jesus," but no one since the world began was ever more fiercely dissatisfied with evils and shams than He was, and His followers should be like Him in this respect.

CAN ONE PERSON INFLUENCE ANOTHER'S HEALTH BY WILL-POWER?

There is no doubt what this question means, though it is not very clearly expressed. If, by the exercise of our will, we take care of other people, we can, of course, influence their health in that way. No doubt what is meant is: Can we affect the health of other people simply by willing to do so, without doing anything else? The answer most certainly is that we cannot; and it is a most important answer, for endless harm has been done in the world for ages past because men have believed that mere willing on the part of their enemies could affect them in this way.

The supposed great instance of the exercise of will-power is when people are mesmerised, or hypnotised. They pass into a curious kind of waking sleep, in which their health can be much affected for good or evil. It is supposed that this is done by the will-power of the person who hypnotises them. This is utterly untrue. It has been proved by careful experiments that as long as the hypnotiser pretends that he is willing and exercising a great power, he can let his thoughts wander as much as he pleases, and the result will be just the same.

The fact is, that if people can be got to believe in the possibility of it, they hypnotise themselves; and all the talk of the great will-power of the hypnotiser is nothing else than mere nonsense.

The next Questions are on page 5247.

HEROES OF THE NETHERLANDS

CONTINUED FROM 5070

The Netherlands were helpless in the sixteenth century, in the grasp of Philip II. of Spain. The brave Dutch inhabitants tried from time to time to shake off the Spanish yoke, but Philip only made matters worse by sending them the cruel Duke of Alva, who was a stern and terrible upholder of his authority.

There were at that time in the Netherlands two friends, Count Lamoral d'Egmont and Count Horn. Egmont was a chivalrous Flemish nobleman and brave soldier, who loved his country, but had sworn loyalty to Philip, and though he was both vain and rash, meant to keep his word, and did so. The army and the people were devoted to him; indeed, he was popular with everyone.

Now, this country of the Netherlands, which we usually call Holland and Belgium now, cherished its liberties and would not be forced into accepting the Catholic religion. Though Counts Egmont and Horn were Catholics, they upheld this determination, and protested against the severity of the Inquisition; so for that, and because he feared their power, Philip determined to put them to death. He soon found a way. Having invited the two counts to dine with his son in Brussels, the Duke of Alva summoned the two to attend a council. There the captain of the guard demanded Egmont's sword, while Horn was arrested in the courtyard. After nine months, they were pronounced guilty of treason, and Philip gladly signed their death warrants.

When news of her husband's doom reached the Countess of Egmont, she at once sought the Duke of Alva, and pleaded for the life of her husband, for his sake, for her sake, and for that of their eleven children, who would be left penniless on the confiscation of their father's estates. The cruel duke, to rid himself of her presence, assured her that on the morrow her husband would certainly be released. Yet just before midnight the Bishop of Ypres was sent to prepare Egmont for death.

In that terrible hour the count showed how brave and good he was. Though indignant at being accused of high treason, yet, he said, if he had fallen into error, he prayed God his death might wipe away his misdeeds. He wrote, too, a letter to the king, declaring his loyalty. Next morning as he was led to the scaffold, he prayed aloud for the king, his murderer. Then, as he knelt to receive the fatal stroke, he folded his hands, and cried: "Lord, into Thy hands I commit my spirit." Count Horn was brought forward, and with the same courageous bearing, and the same last prayer, met his death.

TWO CONQUERING KINGS OF PERSIA

When Cyrus the Great conquered Babylon, he restored to their own land the Jews whom Nebuchadnezzar had **carried away captive, returning to them, as shown in this picture by Gustave Doré, the golden and silver vessels from their destroyed temple, that they might be used in the new temple which Cyrus ordered to be built.**

Xerxes the First gathered a vast army for the invasion of Greece, and built a bridge of boats a mile long across the Hellespont, the channel now called the Dardanelles. When the stormy waves broke his bridge, he ordered **three hundred lashes to be given to the rebellious sea. In this picture we see the king crossing the Hellespont.**

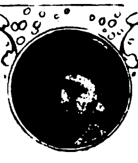
WHAT THIS STORY TELLS US

LIKE ordinary air or water, the ether can be thrown into waves, and these waves, though they all travel onward at the same rate, may be more numerous or less numerous in every second of time. In the case of the air waves of ordinary sound we find the same thing, and so we may have a keyboard for sound waves, varying in the number of waves that are made in a second. So, also, we may imagine a keyboard of the ether, and if we could play upon it we should find that the lowest, or "bass," notes, with comparatively few waves in each second, would be electric waves; higher up would be heat waves; higher still the waves of light, from red light up to violet light; and somewhere higher still, probably, the waves we call the Rontgen rays. In this keyboard of the ether sound has no place, for its waves are never in the ether, but always in ordinary material things, like air or water. Only we find many parallels between sound waves and ether waves, simply because the great, unalterable laws of wave-motion apply equally to both.

THE WONDERFUL KEYBOARD

THE INVISIBLE WAVES THAT GIVE US LIGHT AND COLOUR

CONTINUED FROM 5044



LIGHT consists of waves in the ether, and we know that the movement of these waves makes them quite different from the waves of sound. A sound wave is a kind of push-and-pull wave, moving in the line in which the wave of sound is travelling; but, on the other hand, waves of light move sideways at right angles to the path in which the light is travelling. In ordinary light the waves move just as much from side to side as up and down; but, as we can understand, it is quite possible that we might have light in which the waves were all up and down, or all from side to side, and of no other kind. It might be possible to sift out from a beam of ordinary light all the rays except those travelling from side to side at a particular angle.

This can actually be done. When light passes through certain kinds of crystals which seem quite transparent, most of the waves are really kept back, and only those moving in a certain direction are allowed to go on.

This remarkable fact has the extremely bad name of *polarisation*. Even the light from the sky is more or less polarised, for the waves are not equal in amount in all directions. If we make a sort of star-shaped picture on a piece of paper, with ever so many lines all crossing one another at a centre, then the movement of that star up or down from the paper would be like the movement of a ray of light, and the lines would represent some of the endless number of directions of the waves that make up the light.

Now, we can understand that if a thing like this star were travelling in a certain direction, it might come to some obstacle with a slit in it at a certain angle, say, straight up and down; then all the waves, except those that happened to run up and down, would be stopped, but the up-and-down waves would travel on through the slit, and would form a ray of polarised light. The eye could distinguish no difference in it, but by other means we could prove the difference. We must not suppose that any real slit can behave like this to light, but it merely gives us a sort of picture of the kind of thing that must happen when light is polarised.

Ordinary light from the sky is polarised to a certain extent, but the best instance of polarisation is when light travels through a crystal of Iceland spar, about which there is nothing peculiar to the eye; and yet, though it looks quite transparent, it is really quite opaque to all waves of light except those that just happen to lie at one particular angle to the crystal. In many respects the laws of all waves are the same, but if we once realise the great difference between waves of sound and waves of light as regards the direction of the wave-motion in the two cases, we shall see that the polarisation of light is a thing quite peculiar to waves of this kind. The to-and-fro, push-and-pull kind of waves that make sound could not be polarised.

THINGS THAT LOOK TRANSPARENT BUT WILL NOT LET THE LIGHT THROUGH

When light is polarised, it will pass through things that look transparent only under certain conditions. For instance, if it has been through one crystal of Iceland spar, it will pass through another, provided that the line of the second crystal is in line with the first; but if the second crystal is twisted a little, the light will not get through it.

It is as if a tall man were walking through a narrow door, and, of course, he could walk through any number of such doors, one after the other; but if he came to a door the slit of which, instead of running up and down, ran from side to side, he could not walk through that. That gives us an idea of the kind of thing that happens when a ray of polarised light is stopped by what looks like a perfectly transparent crystal.

We know that in the case of sound there is a thing called pitch. The piano has different notes running in a regular way from low tones to high tones. We also know that the pitch of these notes depends upon the number of waves that are made in a second, and when the number of waves is twice as great for one note as for another, the note with twice the number is an octave higher.

THE WAVES THAT MAKE SOUND AND THE WAVES THAT MAKE LIGHT

A piano usually consists of seven octaves, with perhaps three notes added. It would not need to be much bigger in order to extend in both directions beyond the limits of our hearing, because about eleven octaves is the outside limit of hearing even for young ears. It is good to remind ourselves of all this because it is easy to understand, and because it helps us greatly to understand many facts about light and colour. If light is made of ether waves, the number of waves can vary just as in the case of sound, and we might expect this to mean that light has pitch, just as sound has. Indeed, this is so, though the number of waves made in a second by light happens to be millions of times greater than in the case of sound. Of course, just as in the case of sound, the number of waves may be much more numerous in one instance than in another—even twice as many; and then we shall have a kind of light the pitch of which is, so to speak, just an octave higher than in the other case. This might go on in both directions; and so, indeed, it does, but the interesting thing is, that though the ear can hear about eleven octaves of sound, the eye can see only just about one octave of light.

The natural question to ask is: What fact of light corresponds to the differences in the pitch of sound? And the answer is the wonderful fact of colour.

THE DIFFERENCES IN LIGHT THAT WE CALL COLOUR

The colour of light is its pitch, and as we follow the colours of the spectrum, about which we read on page 5041, from red to violet, it is as if we were listening to someone playing an octave on the piano. Now, in the case of sound, we know that many notes really consist of more than one note, though it is possible, of course, to have notes made up of waves all occurring at the same rate. A tuning-fork produces such a note, but the violin, or a piano string, or the human voice, produces a note made up of a mixture of different pitches.

Now, in just the same way, it is possible to have light which is all made up of waves of one pitch, or light which is made up of any kind of mixture of waves of different pitches. Different colours vary very much as to the variety of waves of different pitch that they are made up of, and the eye usually takes these facts into consideration when it likes or dislikes certain colours.

Let us, then, remember that colour is the pitch of light, just as we may say that pitch is the colour of sound.

We know that when we look at the spectrum, though the various colours pass gradually one into another, yet we see there a small, definite number of certain colours which we can name and number. We must clearly understand, however, that this appearance is only due to the particular way in which our minds happen to be made. Colour really depends on the number of waves in a second; and, within the limits of our seeing, the exact number of waves produced in a second may be anything whatever, and every one of these rates really means, if only our eyes could see it, light of another colour. There are thus actually countless millions of colours, though our eyes see so few.

THE LONG WAVES THAT MAKE RED LIGHT AND SHORT WAVES THAT MAKE VIOLET

Just as the number of waves made in a second varies, so also does the size of the waves. The proper name for the size of waves is wave-length, and the rule is that the longer the wave-length the fewer is the number of waves that occur in each second, and the shorter the wave-length the more frequent are the waves. Of the light that we can see, therefore, the dullest—a red that is almost invisible—has the smallest number of waves in a second and the longest wave-length; while the violet is made up of the quickest waves, which have the shortest wave-length.

Of course, we must not confuse the number of waves in a second with the rate at which the light is travelling. A tall man with very long legs and a boy with short legs may be running side by side at exactly the same rate, but the boy may be taking three strides to the man's one. In rather the same way, all the kinds of light travel at the same rate, but the waves of violet light correspond to the boy's short, quick strides, and the waves of red light to the long, slow strides of the man.

WHY THE CAMERA CAN SEE THINGS THAT THE EYE CANNOT SEE

The study of the wave-length of light is very interesting because it bears on the question as to how small are the things that we can see. The size of the wave-lengths of light is so small that tens of thousands of light waves could be put side by side within an inch. Now, when it comes to trying to see very tiny things with the microscope, the question of the wave-length of the light we are using is very important. The shorter the wave-length, the nearer together may two points be which, seen by such light, will be seen separately. But they may be so near that if afterwards looked at by light of longer wave-length they cannot be seen separately, but are seen only as one thing. So, other things being equal, it may make all the difference to what we see whether we are seeing objects by means of yellow light with rather long wave-length, or by means of blue light with much shorter wave-length.

The trouble here is that our eyes are more sensitive to the rays of longer wave-length, which are, for that reason, so much the worse for seeing tiny things by. Of the plate of a camera, however, just the reverse is the case. It is much more affected by waves of short wave-length than by those of long wave-length. So, where our eyes fail, the camera can, to a certain extent, be used together with the microscope, to see, by means of violet light, things so tiny that they could be seen in no other way.

THE STRANGE EFFECTS OF THE WONDERFUL RONTGEN RAYS

Everyone has heard of the X-rays, often called the Röntgen rays, after their discoverer, Professor Röntgen. He himself called them the X-rays, because X is usually used in algebra to mean something unknown, and he did not know what these waves were. It is probable, however, though not yet certain, that the rays are really light of a very shrill pitch, so to speak, perhaps several octaves above the violet.

We do not yet know how many waves in a second make up X-rays, nor do we know the length of the waves. It is said that some people can faintly see the Röntgen rays. At any rate, it was a very great mistake to suppose that all Röntgen rays were the same—for, indeed, various kinds of Röntgen rays differ very greatly, probably quite as much as red light differs from violet light, and very likely for just the same reason.

At first the X-rays were a curiosity; then they became useful because, when they were passed through the body, different parts of the body threw shadows which often gave very valuable information to the doctor; and then, later still, it was found that the X-rays produced very marked and wonderful effects upon living creatures, including ourselves. Of course, when this was learnt, it became very important to study the rays—to find out all the different possible kinds of them, and to learn exactly how they differ in their effects upon the human body.

Below the red rays there are, as we know, the rays of radiant heat. These also vary very widely, just as the rays of visible light do; and a great American student of the subject has made wonderful discoveries about them. These rays cannot be seen, and when rays cannot be seen they can only be studied in some other way. They can be studied, for instance, by means of the heat they produce; and so this man of science invented a marvellously delicate instrument, which is really nothing more or less than a thermometer, but vastly more delicate than the best of ordinary thermometers. By means of this instrument he has been able to study heat waves in detail, and he has shown that they differ from each other, and, indeed, make up a long spectrum just like the spectrum of visible light.

The one is, of course, a continuation of the other. This spectrum, too, contains lines and places which correspond to the dark lines that can be seen in the spectrum of visible light.

THE KEYBOARD OF INVISIBLE WAVES THAT GIVE US LIGHT AND ELECTRICITY

This wonderful keyboard of waves in the ether extends still farther below the heat rays. The lower waves are slower and bigger. We know them best by their electrical properties, for they are electric waves—the waves that run in the ether inside the wire of a telegraph or telephone, and the waves, needing no wire, which are used in wireless telegraphy. It is extremely important and useful for us to understand that simply by moving down the keyboard, so to speak, from visible light we come to the waves that make an electric current.

Now, this can only mean that light and electricity are as like each other as the sounds produced by the middle octave of a piano and the sounds produced by the notes near the bottom of the piano. We rightly use the one word, sound, to describe both of these things, for they are really the same. We might say, then, that electric waves are really light waves which we cannot see, but this is not the best way of putting it. The best way of describing them is to speak of the electric theory, or the electro-magnetic theory, of light. This theory simply means that light is a kind of electricity. All these waves in the ether, that travel at the same enormous speed, are really of one and the same kind, and the only word that describes them is the word electric.

THE LIGHT WAVES THAT EXCITE OUR EYES AND THE WAVES THAT EXCITE OUR SKIN

It so happens that we possess in our bodies eyes which have the power of being excited by about one octave of these electric waves; and to that octave we give the name of light. It is really electricity. Other electric waves which happen to be longer, and of which fewer happen to be made in a second, affect us in a different way. They do not excite our eyes, but they excite our skin and perhaps make us jump.

Electric waves, including the waves of light, move in straight lines, all of them at a known speed. Just as in the case of sound, or the power of gravitation, or the power of magnetism, the intensity of light gets less very quickly as we pass away from the place where it is made. The rule is that at twice the distance it has one-fourth the intensity; at three times the distance one-ninth the intensity, and so on. In other words, the intensity of light, like the intensity of all these other things, varies inversely as the square of the distance.

As in the case of radiant heat, some substances will let light through, and others will soak it up or absorb it, and others will reflect it from their surface. No one can yet explain what are the differences in different kinds of substances which make them behave toward light in these different ways. Of some things, however, we can be certain.

HOW LIGHT IS LOST BY BEING CHANGED INTO HEAT

One is that when light is absorbed it is not destroyed, for we know that nothing is ever destroyed. What eternally happens everywhere, inside our bodies and in the great world, is not destruction, but transformation; and in this case the light is transformed into heat. That is only another way of saying what we all know so well—that things which the sun shines upon become hot, especially if they are dark things. We know, also, that when substances let light through them, the light waves travel through the ether in the substance in question—as, for instance, through a pane of glass. But however transparent a thing is, it does not let through all the light that comes to it. This is true of a pane of glass, however polished and smooth, and it is true of the beautiful front parts of our eyes.

WHY WE CAN SEE OUR FACES IN THE WINDOW OF A RAILWAY TRAIN

The proof that these things are not quite transparent is plain, because, if we go about it in the right way, we can always see little reflections from a pane of glass, as when a train is in a tunnel, or from the surface of other people's eyes. These reflections mean that light has been reflected to our eyes, and therefore that the thing is not quite transparent.

Although we do not know why one thing reflects and another does not, we can learn the laws of reflection. These laws really hold good, not only for light, but for radiant heat and for sound; everyone who has played billiards pool, or who has thrown an indiarubber ball against a wall, knows something of the laws of reflection.

We know that if we throw a ball straight at a wall, it comes straight back to us; if we throw it sideways, it goes sideways, and it comes off just as much sideways as it was thrown sideways. If a ball on a billiard-table is rolled gently against the cushion at an angle, it will come off again at the same angle. The angle at which the ball approaches the cushion is called *the angle of incidence*, and the law for the billiard-ball, for light, and for all these other cases is that the angle of incidence and the angle of reflection are equal.

HOW THE EYE AND THE MAGIC LANTERN ALTER THE COURSE OF LIGHT

There is another thing which happens to light, as it does also to radiant heat and to sound, and it is called *refraction*. We must always distinguish this word from reflection, which means bending back; but refraction really means breaking back. When a ray of light passes from one thing to another, it is always broken, or refracted, and this refraction also has laws. It is extremely important, for we are able to see things only by means of refraction. The whole of the front part of the eye is really a wonderful piece of machinery for refracting the rays of light that come in so that they shall all be made to fall on the retina, or curtain, at the back of the eye, in such a way as to produce a clear image of the thing we are looking at. Eyeglasses of every kind are used for the same purpose. The use of them all, and of every kind of microscope and telescope, the glasses in front of a magic lantern, and so forth, is due to their power of refracting the rays of light.

Different things have different powers of refracting light. The diamond, for instance, alters the course of the rays of light passing through it much more than water does, this being the reason why the diamond is such a brilliant gem.

But the rays of light themselves differ in their power of being refracted; and refraction is the key to Newton's great experiment, shown on page 1663. His prism was simply a means for refracting the rays of light passing through it, and the success of his experiment depended on the fact that the different kinds of light are refracted each to a different degree in a regular way. The existence of the spectrum depends entirely upon the possibility of refraction.

WHY WE NEVER SEE THE STARS EXACTLY WHERE THEY ARE

If we ask why rays of light are refracted when they pass from one thing to another, a partial explanation can be given. It is that the speed of the light waves is slightly altered when they travel through a different substance, and the different waves are differently affected. The simple rule is that the denser the subject through which the light is passing, the more it is retarded.

When the light travelling through empty space reaches our air, it is very slightly retarded and bent. A consequence of this refraction produced by the air is that we see no heavenly body where it really is, but at some spot a little distance away; and we can actually see the sun when it is below the horizon because the rays are refracted as they pass through the air. When passing from air to water, light is refracted yet more, and the explanation of the facts is that light waves travel slightly slower through water than through air because water is denser than air.

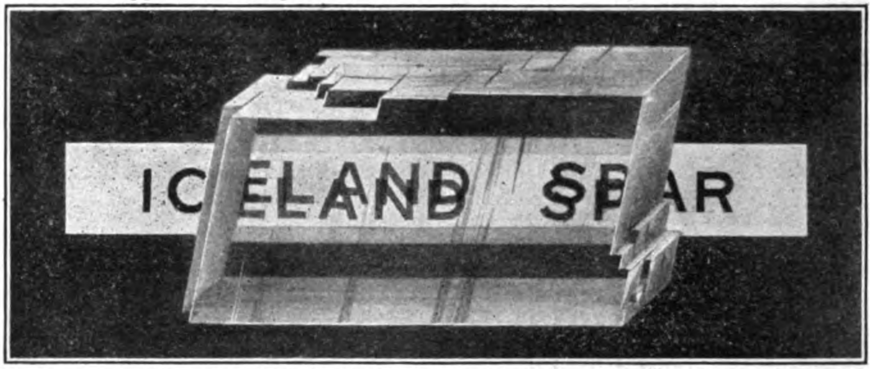
We have seen how refraction produces colour by splitting up white light. But there is a way in which reflection also produces colour, and practically all the colour of the world is produced by reflection. It is true that sunlight has its own glorious colour, for though we call it white light, it is really rather golden; and it is true, also, that luminous things, like flames and fires, have colours of their own, because the light they produce has a high proportion of red or yellow or green or violet rays. But, apart from that, the earth and the things upon it have colours, though they are not themselves luminous; and these colours are produced by reflection from the white light that falls on them.

This reflection of theirs is *selective*, as we might say. A white thing does not select; it is white just because it does not select, but reflects all the waves of light which happen to fall upon it. Not being luminious, it makes and creates nothing, but it will simply reflect whatever light falls upon it. If we throw red light upon it, it will be red; if we throw upon it the mixture of lights called white, it will be white. This is the great difference between the things that are not luminous and the things that are.

We have only to think a little to see what a huge and difficult subject light must be. Such a thing as sound is simplicity itself in comparison, though, as both are made of waves, they have certain laws in common. After all, sound is made of waves in matter, and in studying it we do not have to go outside what we know of matter, though, of course, that is little enough. But light consists of waves in the ether, and yet it is made by matter; it can be reflected and refracted by matter, and matter can choose different parts of it to refract in different ways, parts of it to reflect, and parts of it to absorb. Even transparent matter, as in the case of coloured glass, will absorb certain kinds of light, and will let other kinds through; so that not only are we dealing with something in the ether about which very little is known, but at every stage we are met with questions of the relations between this ether and ordinary matter.

All these questions have yet to be answered, and they must occupy science for ages to come.

There is another great department of the study of light about which huge books have to be written. It deals simply with rays of light and the laws of their bending. This requires a great deal of mathematics, and is called *mathematical optics*. To this subject, also, there is no end, and it is very important, because it underlies everything that we do and shall do with microscopes and telescopes and all the other different kinds of optical instruments.



In this picture we see the remarkable property of double refraction possessed by Iceland spar, which causes the letters on the card at the back to appear twice when seen through the crystal. If the spar is tilted at a certain angle it becomes opaque, so that we cannot see through it. This is shown by the ends of the crystal in the picture.

And men have still, moreover, to study the great discovery of our own times, that light is really electric, which means that we cannot really understand it unless we study all kinds of electric waves. Every fact we learn about light is a fact of electricity, and every fact we learn about electricity helps us about light. There is no discovery for which Great Britain will be more certain to be celebrated than the discovery that the light which fills the universe is a kind of electricity and magnetism.

The next part of this is on page 5253.

A VISIT TO UPPER NEW YORK

In our last story of our visit to New York, we progressed as far uptown as Madison Square. To-day we shall go as far as Grant's Tomb. From 23rd Street we take the 'bus up Fifth Avenue, the most interesting of all the New York streets, especially in the afternoon when the sidewalks are filled with crowds of foot-passengers and the roadways with carriages and automobiles.

Like Broadway between 18th and 23rd Streets, the crowd on this portion of Fifth Avenue is thoroughly cosmopolitan. " Group succeeds group hurrying by, and no two of them quite alike in any respect. Girls, troops of girls, in grays, in browns, in blues, green, pinks and mauves, quite unconscious of everything but their own talk, old women in silks and bombazines, butlers and haberdashery clerks and men-milliners somewhat puffed up with their own importance; old clubmen with white waistcoats and top hats; fat people with apoplectic faces; shop keepers and agents and salesmen in stripes and checks; churchmen in clerical garb; nuns in black; emigrants in caps, staring round them with a wild surmise, — all move and intermingle in the currents. And with them, pushing against them, running into them, are messenger boys and bundle carriers, and sometimes schoolboys on roller-skates to add to the confusion. The street from gutter to gutter is just as full of vehicles as the sidewalks are of moving people. Carriages and automobiles of all sorts crowd along in processional line. Policemen, mounted or standing, are on the centre of crowded cross-streets to hold up the line of carriages for a moment and allow a stream of foot-passengers to pass over. But as a rule everyone does his own scrambling, keeps from under the horses' feet, and gets about or across as best he can."

Fifth Avenue, between 23rd and 42nd Street has become commercialised. The better class of shops are moving from Broadway on to Fifth Avenue, and those which cannot afford the enormous rentals are crowding into the uptown side streets as near to the Avenue as possible. There is a break in the line of store windows at 34th Street, where the Waldorf-Astoria still holds sway, and further uptown, at 42nd Street, with the beautiful new Public Library. The imposing Catholic Cathedral of St. Patrick, with the row of Vanderbilt houses and the University Club opposite seem to call a temporary halt to the trade line on Fifth Avenue, but in time it will sweep past even these barriers, and the residents between Fiftieth Street and the Park will seek " fresh fields and pastures new " to build their ornate dwellings.

The Plaza at 59th Street, where Central Park begins, is an imposing square, " opening, as it does, upon the Park, and illuminated by the superb statue of Sherman by Saint Gaudens," and faced about by high hotels. Beyond the Plaza the Avenue runs on, Central Park on one side and a long row of over-ornamented stone residences on the other. At 86th Street in Central Park is the Metropolitan Museum of Art, which is well worth a visit from strangers in the city. In another part of our book in an article on " Some American Painters " can be seen reproductions of a few representative pictures on exhibition in this museum.

At 86th Street we dismount from the 'bus and take the cross town cars through Central Park for the West Side of the city. In this ride through the Park we get little chance to get a real idea of the beauties of the place, with its broad reservoir, with its tangle of roadways, bridle-paths and foot-paths, and its charm of colour in trees

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and vines and flowers. To New Yorkers Central Park is one of the loveliest spots in all the world. And in the early spring, "when the jonquils and Forsythia are in bloom, when the young grass is just starting, and the stems and the buds are reddening along the way, you are quite ready to agree with them. All through the summer there is change and variety in the bloom, and when the winter arrives, the Belvedere, the Mall, the Ramble are still beautiful in their lines even under a mantle of snow."

When we reach the west side of the Park we dismount from the car and take a taxi-cab. "Riverside Drive," we say as we climb in. And the automobile sweeps down to Seventy-second Street and then across to the broad avenue that runs along the east shore of the Hudson River. The river, and the parkway that slopes almost to its edge, burst upon our view with an imposing beauty. The Drive itself, with its ornate residences and tall apartment houses lined up along one side, is almost deserted, except for an occasional nursemaid wheeling a baby carriage, or an automobile that spins past us. Across the glistening blue waters of the river, the Palisades rise tall and majestic.

The simple beauty of the marble tower of the Soldiers and Sailors' Monument rises before us, and then, almost before we know it, we have covered the two miles distance between it and One Hundred and Twenty-third Street, and we are before Grant's Tomb, its pyramidal dome clear-cut against the pale evening sky. We should like to enter the Tomb to pay the tribute of a few minutes' pause before the remains of the great general and his wife, but the sun is rapidly sinking behind the Palisades, so we content ourselves with circling about it, and turn our faces again toward the southern portion of the city.

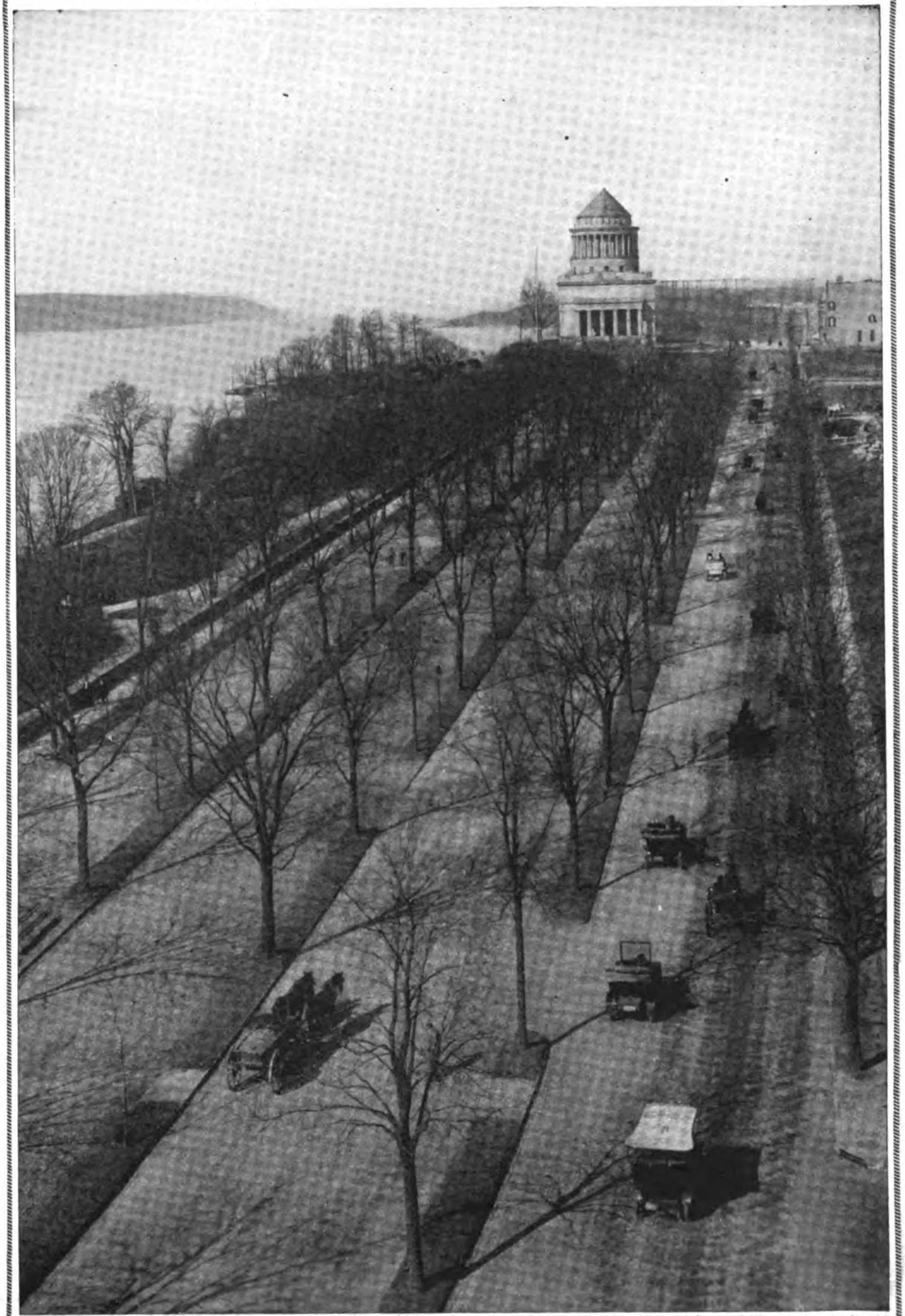
We ride slowly past the impressive buildings of Columbia University, with its adjuncts of Barnard and Teachers' Colleges, down Amsterdam Avenue, past St. Luke's Hospital, and stop for a moment to view the promise of a great and beautiful structure in the incompleted Cathedral of St. John the Divine.

There are many more places of interest in different parts of New York City which we should like to see if we had the time, such as the College of the City of New York, where one of your editors works, the Little Church Around the Corner, the museums in Bronx Park, and many others. We should like to inspect some of the large shops, as Altman's or Tiffany's, or visit some of the famous dining places of fashion, as Sherry's and Delmonico's; or, perhaps, stroll into some of the poorer, yet absorbingly interesting, quarters of the city, as the Bowery and Chinatown. We should like to do all this, and yet we are going to leave New York by a train from the new Pennsylvania Station at six o'clock.

As we turn our faces toward the heart of the great city, the dusk closes in about us, and the lights begin to spring up from block to block, and the streets stretched out before us become a blazing filigree of light. The elevated overhead "trails a chain of fire," the high apartment houses show a thousand illuminated windows. As we near the heart of the metropolis we find all the show-windows aglow with electric signs, and some of the larger stores have rows of lights running along the edges and cornices, thus outlining the whole building from foundation to roof. Every place of amusement flashes an electric sign and "when to this is added the glitter of the ordinary advertisement signs" from the rooftops and wall spaces, the effect is fairly bewildering. New York at night! all crudenesses, all incongruities hidden — what a city of enchantment she is! Under the glare, the glow and the glimmer of her lights, we begin to realise the great, grappling hold this city gets upon the hearts of her people; and how those who have once lived here, turn away from Paris, from London, from Berlin, and return to her crowded, restless, calling streets with a deep sigh of satisfaction.

"Is she not fair and terrible, O Mother —
City of Titan thews, deep-breasted, colossal-limbed,
Splendid with the spoil of nations, myriad-mooded Manhattan?
Behold, we are hers — she has claimed us; and who has power to withstand her?"

RIVERSIDE DRIVE AND GRANT'S TOMB



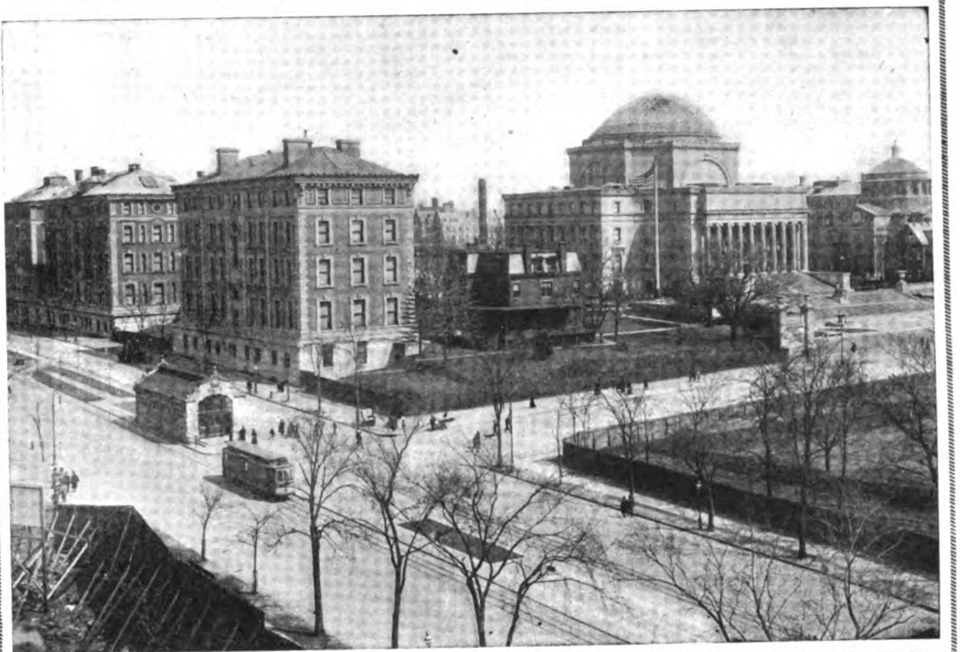
Here is a picture of Riverside Drive with its long vistas of trees, and Grant's Tomb, its white dome outlined against the sky. Beyond is the Hudson with the Palisades dim in the distance. You will notice that the Drive is divided into four roadways, two for equestrians and two for carriages. Those travelling uptown keep to one side of the Drive, and those going downtown to the other.

WHERE THE CROWDS GO

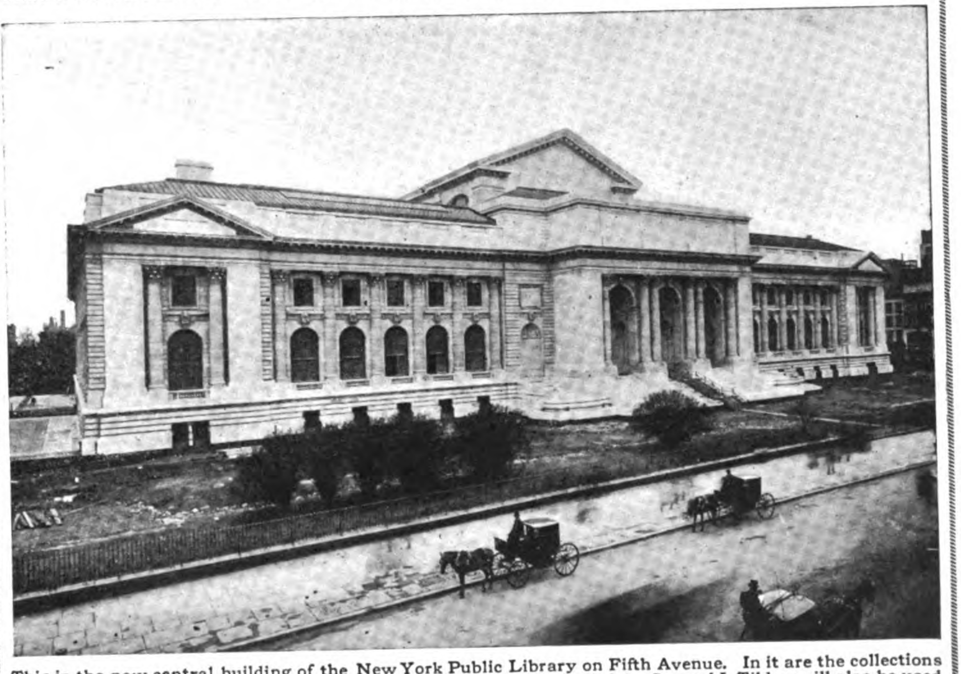
In another article we have told you all about the Museum of Natural History, the front view of which you see here. The Museum as it will be when it is completed is on page 4900. Go to the Museum almost any day in the week and you will see troops of school-children being conducted by teachers through its halls.

Here is a picture of the Plaza at Fifty-ninth Street and Fifth Avenue. In the centre we see the beautiful statue of General Sherman by our well-known American sculptor, St. Gaudens. Central Park begins here, and on Sunday afternoons the Square is alive with people. Some of the most fashionable hotels in the city are grouped around the Plaza, and prices for apartments hereabouts range into thousands of dollars.

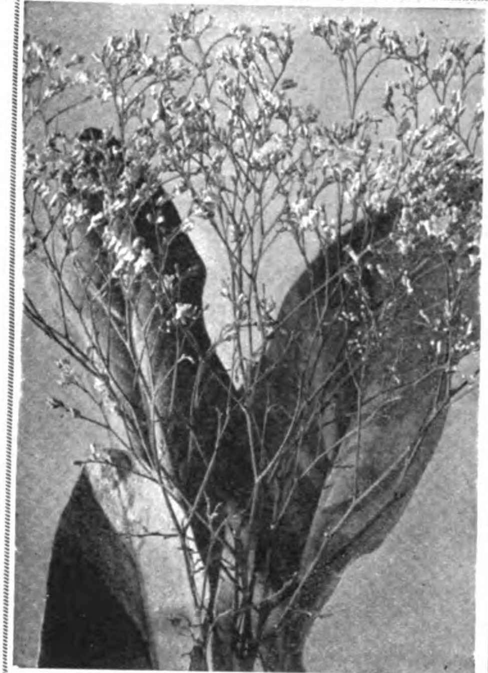
TWO GREAT EDUCATIONAL CENTRES



Columbia University is one of the oldest institutions of learning in the United States. It was founded as King's College in 1754, and this is the fourth site it has occupied. Even now, with all these immense buildings and many others which you do not see, not all the departments of the University are on this site. Some of them are several miles away. The building in the centre is the library.

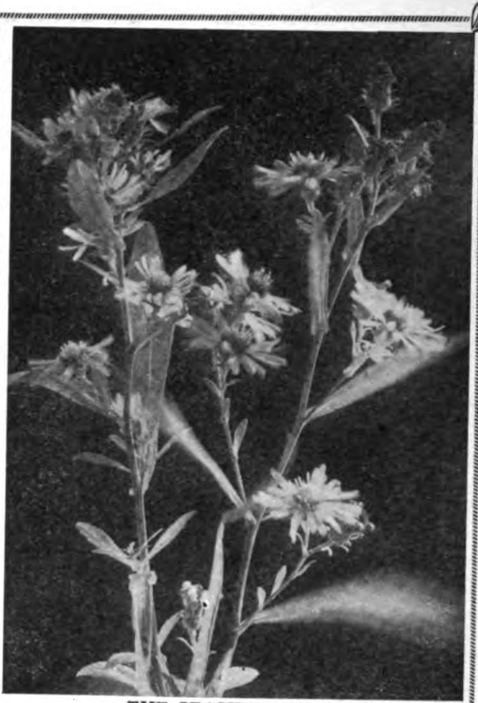


This is the new central building of the New York Public Library on Fifth Avenue. In it are the collections formerly in the Astor and the Lenox Libraries, and the endowment left by Samuel J. Tilden will also be used to purchase more books. This library is for reference only and books may not be taken out of the building. The circulating libraries are in different parts of the city



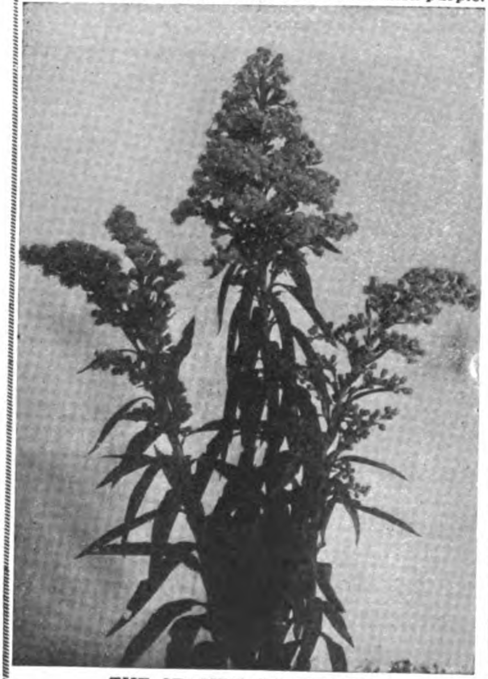
THE SPREADING SEA LAVENDER

There are several kinds of sea lavender that grow on our coasts, but this is the common variety. It is found on muddy shores, and has been much used for its medical properties. The flowers are bluish purple.



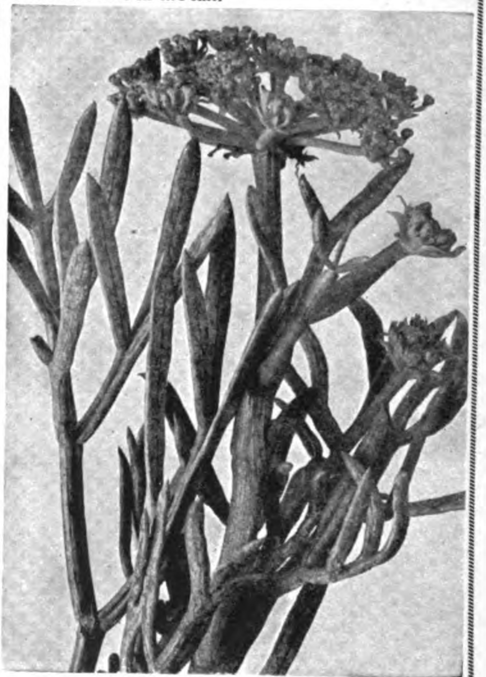
THE SEASIDE ASTER

The seaside aster is really a salt-marsh form of the New York aster, with fleshy untoothed leaves and long rays of pale violet, very striking when blooming in masses late in the fall.



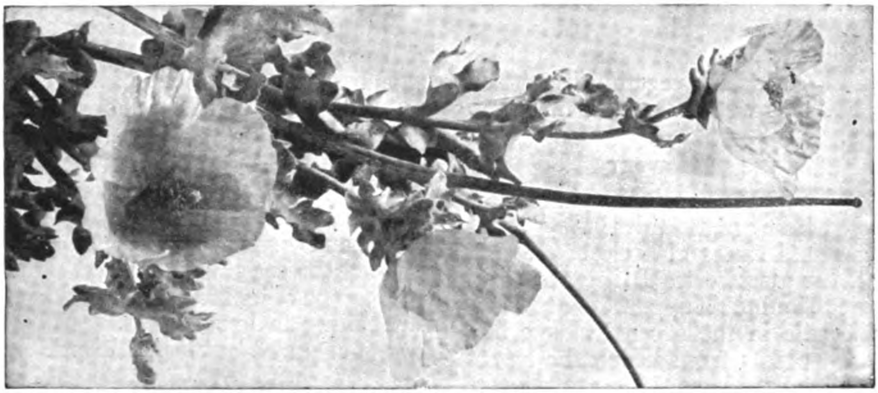
THE SEASIDE GOLDENROD

This member of the goldenrod growing near the sea can be recognised by its fleshy, smooth leaves with unbroken edges, and the heavy, shapely flower-heads, with large, golden flowerets.



THE ROCK SAMPHIRE

The fragrant rock samphire, with its thick and fleshy leaves and stems, is used for pickling and makes an excellent relish. Samphire is a corruption of San Pietro, the Italian name, meaning the herb of St. Peter.



THE FLOWERS OF THE SEASIDE

CONTINUED FROM 5038

Although there are many plants that flourish only within a few miles of the sea coast, there are some so fond of sand and salt water that they naturally grow at the water's edge, or in the salt marshes. Some of them, indeed, are half covered by high tides.

Very many of the plants that thus hug the coastwise beaches have one marked trait, whether they grow in the narrow strip of sand and gravel between the sand-dunes and the sea-weed and other jetsam left by the highest waves, or in the ill-smelling, black, salty mud of salt marshes. This is the interesting fact that their foliage, as well, often, as the stem, is very simple in outline, and so glossy and smooth as to feel almost greasy. Many of them are thick, or " fleshy," like the cactus, and some are so swollen as to be quite like cylinders. This is also a characteristic of plants growing on deserts and saline soils, and is a device for securing as small a surface as possible, so as to prevent the precious water in the tissues of the plant from escaping too rapidly through the pores provided for that purpose in the surface of every leaf; for the plant on the sea-beach, as well as that on the desert, must be able to grow in sand so hot that one can hardly step barefooted upon it, and through which such rain water as falls quickly seeps away. Therefore, those plants that have gradually come into the possession of foliage that is able to retain such water as may come to it in the top, are most able to survive in such unfavourable localities in spite of the attacks of the sun and drought.

But these crisp, fat, watery leaves called " succulent " in books, are tempting to browsing animals, and often these plants are tart, or salty to the taste, while others are very thoroughly and wickedly protected with an armour of most surprisingly sharp prickles.

THE SALTWORT

The saltwort is a striking example of both of these traits. It also has another somewhat common characteristic of sand-loving plants, — a long, spindling, taproot from which the reclining branches spread in a great circle, forming a huge rosette on the strand; the foliage, to all outward appearance, being merely swollen, fleshy supports for needle-pointed spines that occupy all the available space. In the axils the

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fruits are crowded, each having quaint wings flaring horizontally from the apex. The saltwort belongs to that great goosefoot family which includes the useful vegetables, spinach and beets, as well as certain maritime plants.

THE GLASSWORT

Not far from the saltwort, in the low grass, where high tides may flood them, stand ranks of a closely related plant, the glasswort. Brittle, smooth, spineless, and to all appearance leafless, they bristle in the green herbage like skeleton plants from which the leaves have all fallen away. As a matter of fact the leaves have been reduced to mere scales on the round, upright branches. In the axils of the upper ones, minute flowers are sunken. In summer the glassworts are green, but as autumn approaches they become brilliant scarlet in colour.

THE SAMPHIRE

The name "samphire," occasionally applied to the glasswort, has been borne much longer by a European plant of rocky shores, a rather quaint umbel-bearer, whose solid stems and leaves become swollen and juicy. In some seaside places it has been so much gathered for making into a pickle that it is no longer to be found. We might think it is a plant without leaves, for it appears to be merely a much branched and twiggy stem with umbels of yellow flowers. As a matter of fact the flowers are white, but are very small, and do not show up so strongly as the yellow pistils and footstalks, and the blue-green leaves are so cut up into slender, fleshy, lobed leaflets as to resemble twigs.

THE ORACHE

To return to our goosefoot family, we find in it the orache, a pot-herb, growing originally on European sea-beaches, and only seldom found in our gardens; and also the fleshy, glaucous sea-blite with three-angled leaves, a bushily branched herb, which grows indifferently on sandy or muddy beaches, or in the salt marshes.

When we leave this family and its queer plants and unattractive flowers we are relieved to discover more showy maritime vegetation. There is, for instance, a pretty European shrub belonging to the oleaster family, which we sometimes include in our shrubberies, but which is not native to our coasts. It has drooping branches covered with egg-shaped or lance-shaped leaves, that are dull green above, and silvery white beneath, and is called the sea buckthorn, or sallowthorn, some of its branches being short, and ending in long spines. It bears orange-coloured berries, which are tart.

THE TAMARISKS

Still other European shrubs (of a family of the same name) sometimes growing into small trees are the tamarisks, with wand-like pink-flowered branches, and the so-called sea-hollies. One that at home grows on the sand above high water, has a short, thick, branching stem, with broad, roundish leaves that are thick and leathery, and their margins are cut into bold teeth that end in very sharp spines. They are of a gray-green tint, and have the appearance of a " bloom " upon them.

THE MARSHMALLOW

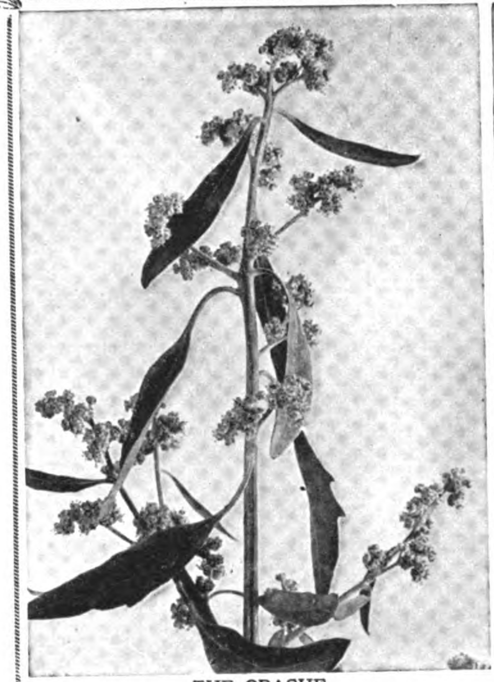
The pretty, furry, marshmallow that is very closely allied to the hollyhock, is sometimes found naturalised in our salt marshes, escaped from cultivation. Its roots contain a sort of gum or mucilage, from which the sweetmeats were originally made.

THE SEA-CAMPION

Another European plant that grows about the cliffs, and on the edges of fields that may be above them, is the sea-campion, which has similar leaves and flowers, but the stems are less erect stems than those of the bladder campion, and the white petals are somewhat broader.

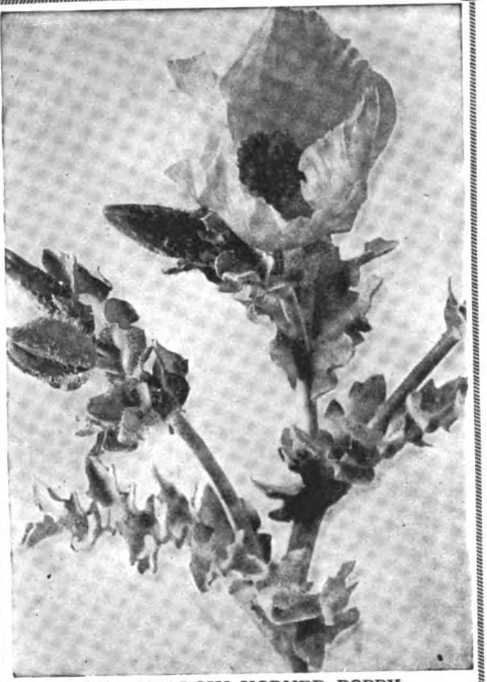
THE SEASIDE CONVOLVULUS

Another plant that we should recognise if we were abroad is the European seaside convolvulus, because its flowers and leaves are similar in shape to those of the field convolvulus, or small bindweed. Its slender stem



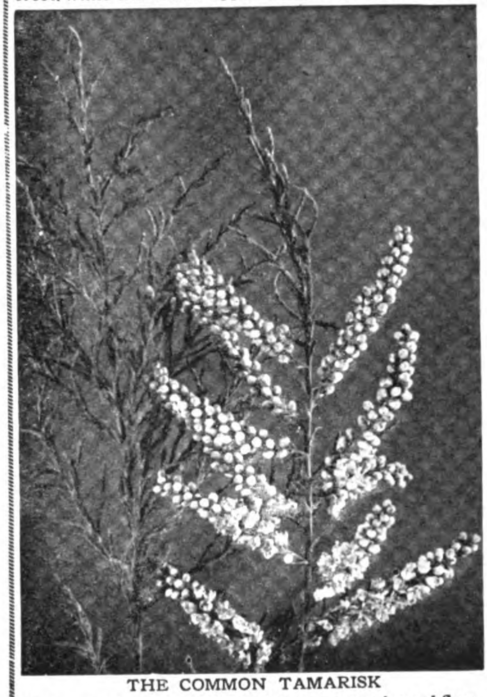
THE ORACHE

This common weed of the seashore, where it grows in great abundance, flowers from July to October, and the whole plant has a reddish tinge. The central branch is erect, while the others appear as though beaten down.



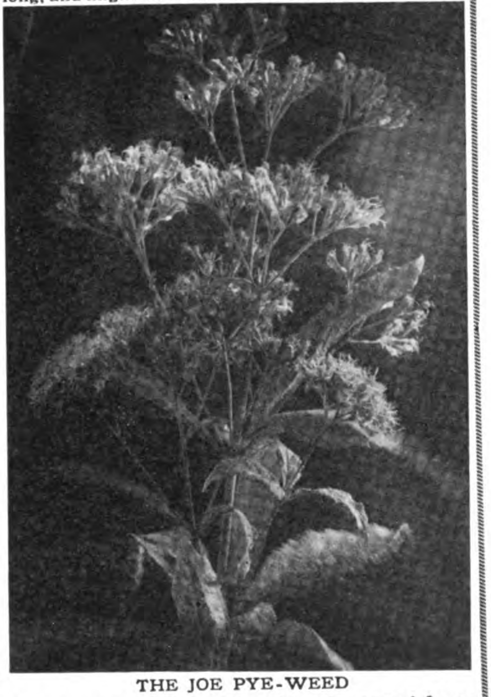
THE YELLOW HORNED POPPY

On sandy or chalky beaches the horned poppy is very conspicuous with its large flowers of rich golden yellow. The seed-pods that follow the flowers are very long, and might be mistaken for leafless flower-stems.



THE COMMON TAMARISK

This fine evergreen shrub, with its rose-coloured flowers, has a light, feathery appearance. It is largely used as a hedging in seaside gardens, as it withstands the strong salt winds and protects other plants.



THE JOE PYE-WEED

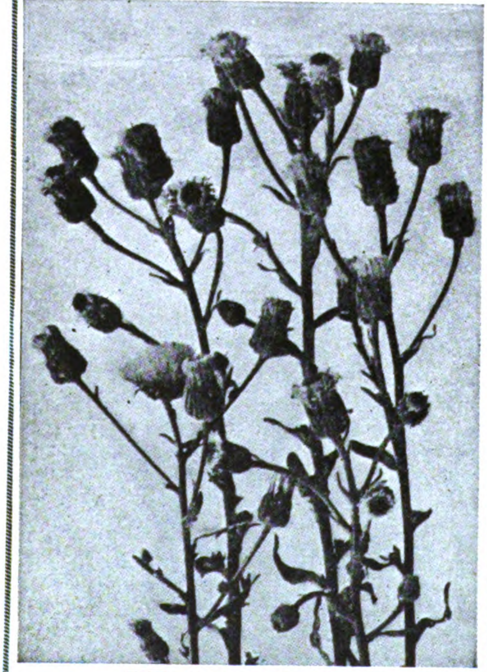
This great swamp-weed is said to be named for an old Indian, who recommended it for its medicinal virtues. The flaring outline of the stem with leaves and flowers has suggested the name of trumpet-weed.

THE RED BARTSIA

This plant is by no means confined to seaside districts, but grows in waste places and fields all over Britain. The reddish-green leaves and the small pink flowers give the whole plant a reddish appearance.

THE CLOT-BUR

This odd-looking bush has wide-spreading branches, bearing tufts of many-angled velvety leaves, and curious flowers, succeeded by brown fruits covered with hooked prickles.



THE BLUE FLEABANE

Though this plant is not a seaside flower, it may often be seen growing near the sea on such places as old walls and other dry spots. The plant is very much branched and very hairy. It is rare in Europe.

THE GROUND-NUT

There are several plants known by this name, but this tribe belongs to the pea-tribe and furnished food, in the shape of rather large, dark-skinned, squarish tubers, for both the Indians and the early explorers.

THE BAYBERRY

These shrubs are conspicuous as rounded masses of dark-green, aromatic foliage, growing on sand-dunes along the Atlantic coast. Only in winter are the pallid berries apparent on bared twigs.

THE MARSH ELDER

A tall, glossy-leaved plant is the marsh elder, growing in great clumps along the muddy banks of tidal rivers and shores, with green, tassel-like flowers. It has a disagreeable odour like others of the ragweed family.

THE MARSH MALLOW

The common marsh mallow grows on marshes near the sea, and is a mass of blossom in August and September. The flowers are large and rose-pink in colour. The plant was used as a remedy for chest complaints.

THE BEARBERRY

This evergreen creeps over large areas of sandy soil, upholding its waxen, urn-shaped flowers, and large, scarlet berries on slender, woody stems. The tough little spatulate leaves are used in medicine.

runs underground like that of the bindweeds, but is shorter and rarely twines around other plants.

THE HORNED POPPY

On the European sand-dunes, grows the fine horned poppy, with bold, glaucous leaves and rich yellow flowers, three or four inches across, which occasionally occurs in America as a visitor from abroad, springing up in waste places. Instead of its seed-vessels being of the shape of our old red-flowered friend of the cornfields, the horned poppy pod is a slender, curved horn, a foot in length.

THE MILKWORT

The sea milkwort, or black saltwort, is a sea-beach succulent plant of both the Old World and the New, blooming early in summer. It is a member of the Primrose family, and would be more fitly named the sea pimpernel. Though its stems are six or eight inches long, we shall not find them reaching that height above the rock, for they are much inclined to trail or to take a half-erect position. The small, oval, stalkless leaves are in pairs, and each pair is at right angles to the pair above or below it. The flesh-coloured, crimson-dotted flowers are without stalks. It is the bell-shaped calyx that is coloured, for there are no petals.

THE SEA-LAVENDER

In the Plumbago family, very closely related to the primroses, is the dainty sea-pink, or thrift, of both worlds, but found only far north in America; and the sea-lavender, which is very common in our muddy salt marshes. Here, again, we have the fleshy leaves, oblanceolate, large, and spreading in tufts from a thick rootstock. Above them, borne on tall slender scapes, the widely branching flower-heads look like shreds of fog caught on the meadow grasses; for the tiny flowers sit erect in little one-sided spikes on the fragile sprays of the panicle, with hairy, pale-lilac petals and calyces of paper-like sepals. Long after they have ripened their seeds, the flowers still retain their form and some of their colour.

THE SEA-ASTER

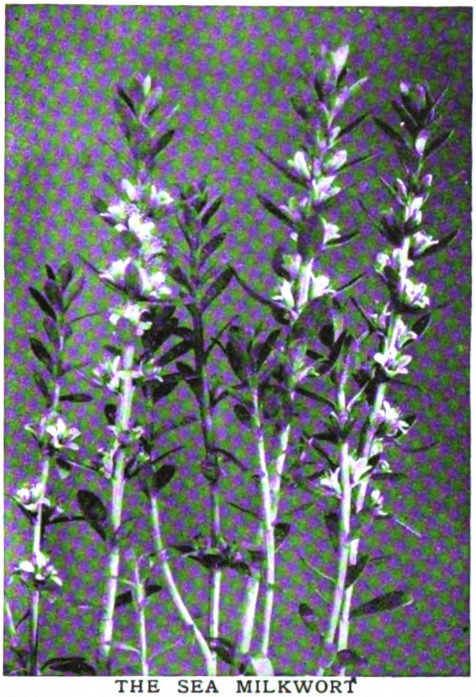
Down in the marshes with the sea-lavender several little asters, with slender but fleshy leaves, bloom gaily. Another aster with stiff stems and rigid leaves standing out in all directions springs from the sandy beach, and is topped by large and brilliant lilac flowers. Later than these, however, we find in the salt marshes a fleshy-leaved form of aster, known as the New York aster, which has very pretty blossoms with rays of palest violet.

THE SEASIDE GOLDENROD

Near them, at the edge of the marsh, stand the very handsome seaside goldenrods with stout stems, plentifully furnished with shining, fleshy, smooth-edged leaves. The flowers are unusually large, of a rich golden colour, and bloom on the upper sides of the down-curving sprays of the great panicle. Of course, both of these belong to the Composite family, and so also does the Joe-Pye-weed — a great plant that is common in swamps throughout eastern North America, but is particularly rampant in salt marshes. It grows over six feet high with a strong purplish stem rising through whorls of great, long-pointed, toothed leaves, and branches at the top, thus forming a massive pyramid of dull-purple or old-rose flower-heads, that makes it the most striking plant of the marshes even when in fruit.

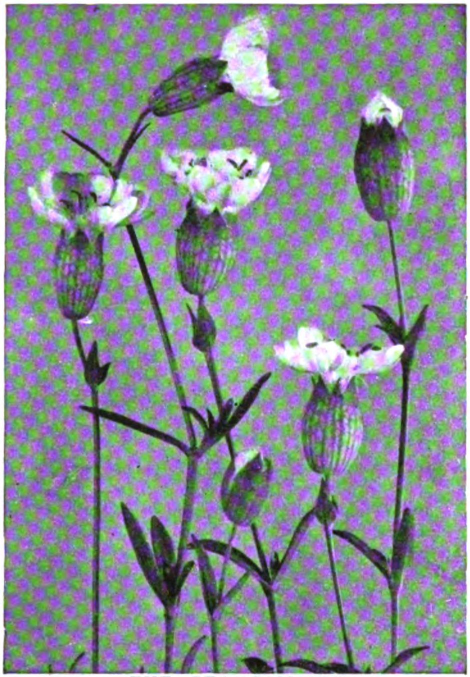
THE MARSH-ELDER

The quaint name of the high-water shrub or marsh-elder, gives a broad hint as to where it may be found. In fact its sturdy stems spring up just out of reach of the waves on muddy shores. It keeps its glossy, deeply toothed leaves late in the fall. They are somewhat fleshy, and grow smaller and smaller towards the top, until on the flowering branches they are very slender and short, and from their axils droop little heads of green flowers protected by a cup-like circle of bracts. The shrub has a disagreeable, rank odour, and looks very much like an overgrown ragweed. This is not surprising, for it is a member of the ragweed family. Another member, and one which



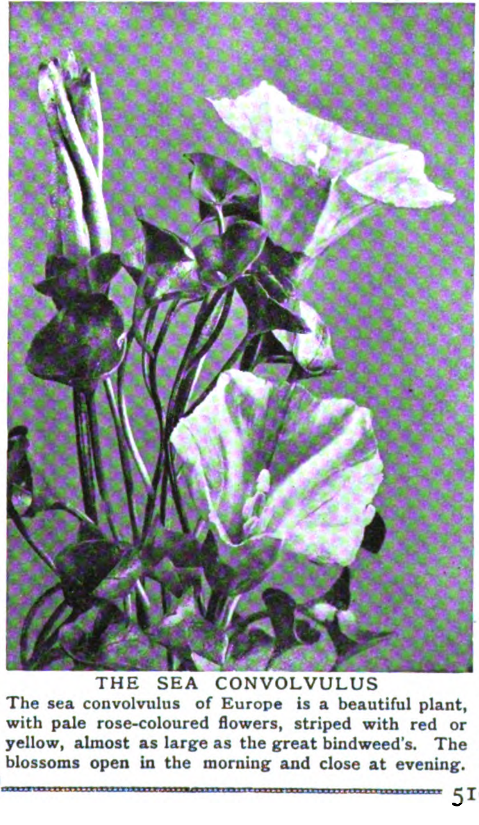
THE SEA MILKWORT

Another name for this plant is the black saltwort. It grows in the low rocks that are splashed by the sea and in salt marshes. The pink flowers with tiny crimson dots are succeeded by fruits like those of the primrose.



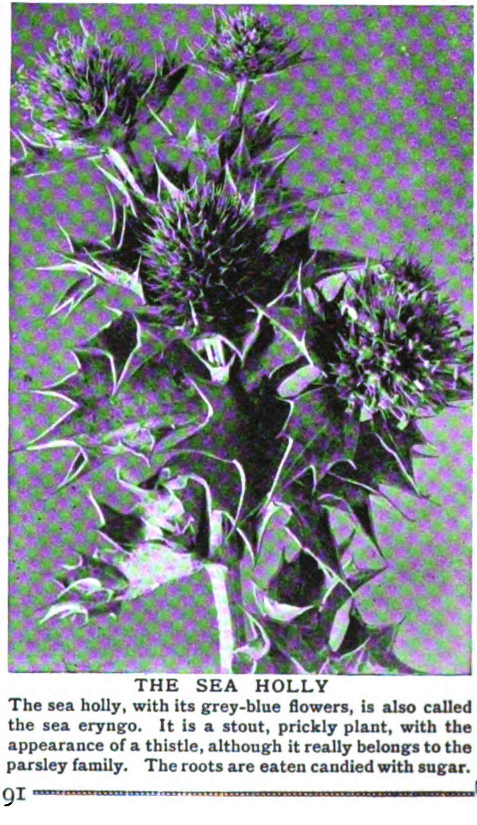
THE SEA CAMPION

The large white blossoms of the sea campion snow up well against the shingle of the coasts of Europe where it blooms all the summer. It is remarkably like the bladder campion, or white bottle, of the fields and hedges.



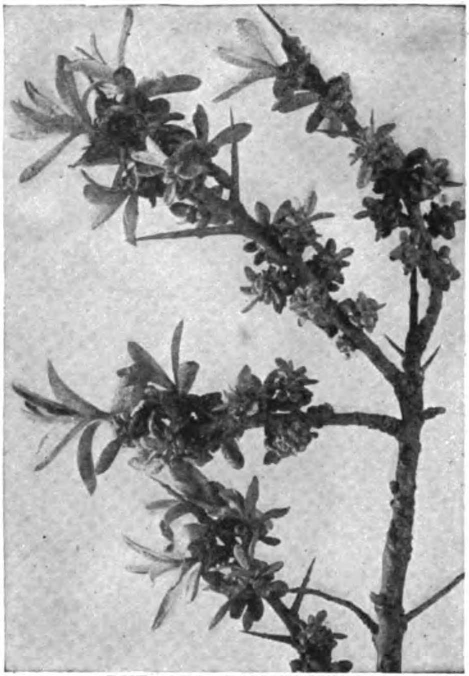
THE SEA CONVOLVULUS

The sea convolvulus of Europe is a beautiful plant, with pale rose-coloured flowers, striped with red or yellow, almost as large as the great bindweed's. The blossoms open in the morning and close at evening.



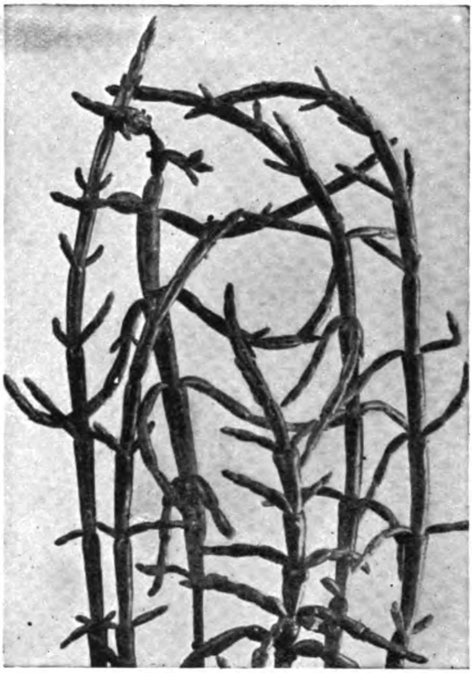
THE SEA HOLLY

The sea holly, with its grey-blue flowers, is also called the sea eryngo. It is a stout, prickly plant, with the appearance of a thistle, although it really belongs to the parsley family. The roots are eaten candied with sugar.



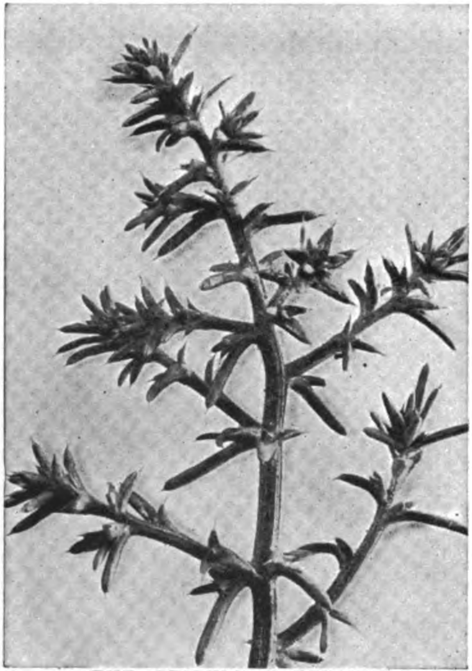
THE SEA BUCKTHORN

The sea buckthorn is a bushy shrub with leafy branches which end in thorns. The leaves grow on short stalks, and are dotted above and silvery underneath. The flowers are green, and the orange-coloured fruit is acid.



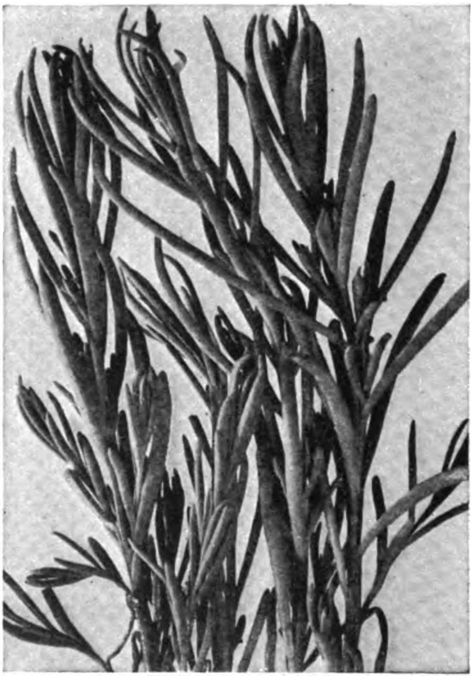
THE GLASSWORT

The jointed glasswort, or marsh samphire, is abundant in the salt marshes around our coasts, and is sometimes used for pickling in place of the samphire, some people preferring it. It was formerly used in making glass.



THE PRICKLY SALTWORT

This hairy and much-branched plant, with its striped and angular stem and prickly leaves, rarely grows higher than a foot. It is common on sandy shores, and was once much used in preparing carbonate of soda.



THE SEA BLITE

Like the saltwort and the glasswort, the sea blite yields an impure carbonate of soda, formerly much used in the manufacture of glass. It is common on muddy seashores, and has a reddish hue in winter.

promptly calls attention to its presence, is the beach clot-bur, that has zigzag branches with unshapely, rough green leaves, and firm oval burs clustered in the axils, very completely provided with hooked, hairy prickles, as well as a pair of stout, hooked beaks at one end, by means of which they cling persistently to an animal's coat, or to clothing, thus being transported for some distance, and scattering the seed over a wide territory.

THE BAYBERRY

On the beach, on the sand-dunes, and even far inland, one sees the rounded bushes of bayberry, or wax-berry. Its rigid, dark green, dull, oblong leaves, are resinous and very aromatic, in odour a little like the bay or laurel, as we will discover by crushing them. When the leaves fall, one can see the ripened berries, or drupes, clinging closely to the stems. They look very white, but pick one and scratch it a little. You will find that the whiteness can be scraped off, and that the berry is really dark coloured and very wrinkled, and the white substance that covers the berry lies thick in these creases. It looks like, and is, vegetable wax, which without doubt acts as a waterproof coating and prevents the rain and snow from injuring the berry as it clings to the stem during the winter. This wax was utilised by early colonists, who boiled great quantities of the berries, and made candles from the melted wax that floated to the surface. When blown out the pale-green candles exhaled a delicious spicy fragrance.

THE BEARBERRY

A very widely distributed plant in the colder regions of the northern world, is the bearberry of the Heather family. Although it is quite common inland, it grows very often on the bluffs of the northern sea-coasts, where its creeping stems gradually overgrow large patches of sand for the comfortable ripening of their bunches of scarlet berries, greatly relished by game-birds. The berries and the pale, waxen flower-bells before them, droop close to the earth under the tufted, tough, little spatulate leaves that terminate the trailing branches. The plants have been used for tanning, and not only do they furnish a drug, but when dried were used by Indians as a tobacco to be smoked alone, or added to the ordinary kind, whence the plant is called "kinnikinnik."

THE GROUND-NUT

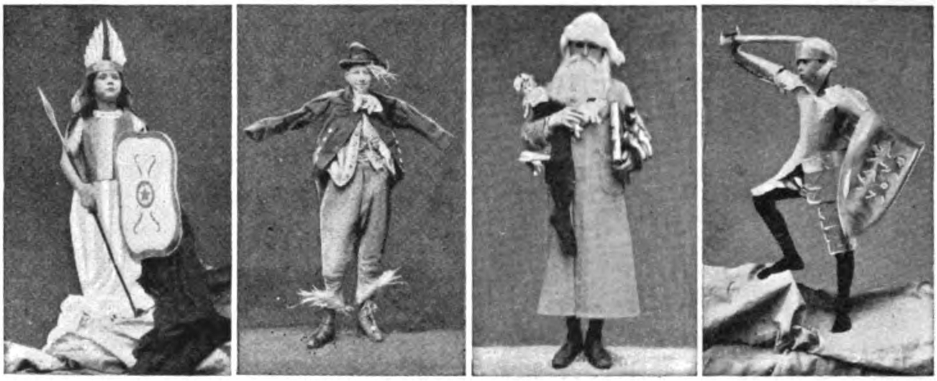
Still another plant of great value to the Indians was the groundnut. Like the bearberry it is often found far inland, but in moist rather than dry soil. It seems to be particularly prevalent along the coast, just keeping clear of brackish water; and roadside thickets are wreathed with its far-reaching, twining vines, and fairly smothered with its balls of dull-purple and old-rose, pea-like flowers that are curiously twisted and give out a delicious odour of violets. Its chief interest, however, lies in the dusky-skinned squarish tubers that sometimes are as big as pecans, and often lie in strings like the beads of a necklace, separated by slender rootstocks. These were a favourite food of the Redmen, who resorted in parties to the swamps where they could be dug up. They probably tasted not unlike potatoes when boiled.

THE SEAWEEDS

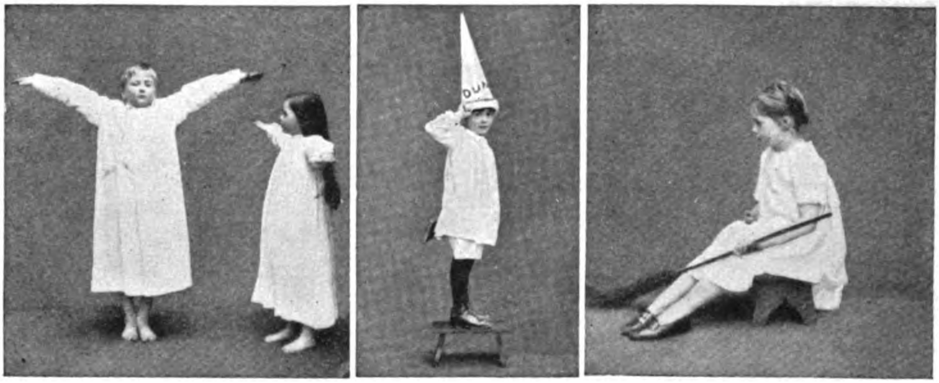
While we are on the shore, we shall, of course, become interested in the seaweeds. As they are not flower-bearers, they scarcely come within the bounds of this article. They are plants that live almost entirely in water, reproducing themselves not by seeds, but by minute pores that cannot be seen without the aid of a microscope. Those which grow attached to the rocks inshore get uncovered at low water for a few hours at a time, and if the tide did not come back soon they would dry up and be killed. These seaweeds have no real roots, for what look like roots are only suckers that hold them fast to the surface of the rock; they never penetrate it, and they draw their food entirely from the water through the surface of their fronds. The large ones attached to the shore rocks have thick, leathery fronds of an olive colour.

THE NEXT STORY OF PLANTS IS ON PAGE 5269.

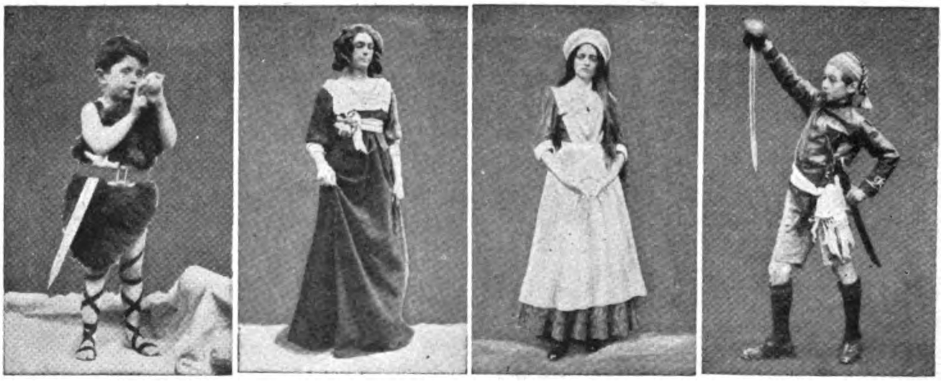
FANCY DRESSES THAT COST NOTHING



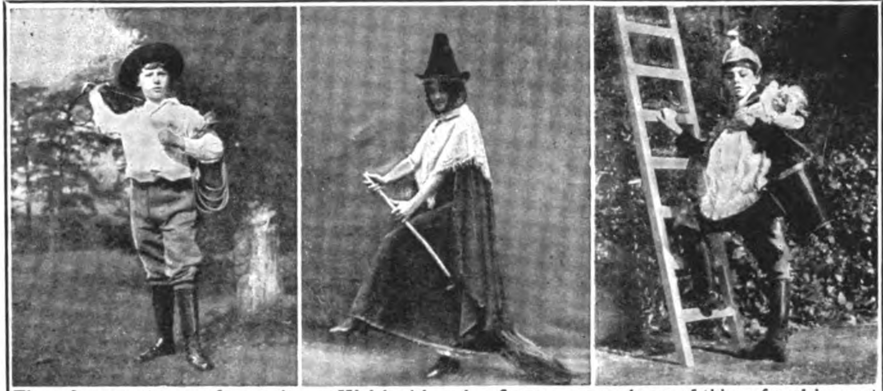
An excellent idea for a winter afternoon is to organise a children's fancy-dress tea-party. The costumes need not cost anything. They should be made up from things found in the house. All the dresses shown in the pictures on this page are made up in this way. On page 86 we read about Valkyries, and in the first picture here we see a Valkyrie, with helmet and breastplate made of cardboard, the armour of the knight in the fourth picture being made of similar material, covered with silver paper from tea-packets. The second picture shows a scarecrow; and in the third we see Santa Claus, with hair and beard of cotton-wool.



In the first of these pictures we see Peter Pan and Wendy, whose costumes are easily made. The children simply take off their shoes and stockings, and put on nightgowns over their ordinary clothes. In the middle picture is a dunce; and it is easy to dress for this character, as all that is needed is a dunce's cap, made out of a sheet of paper. The child in the third picture is Cinderella. All she needs for dress is a soiled overall and a broom.



The boy in the first picture is made up as an ancient Briton. His dress is a perambulator-rug, with a belt of brown paper, and a sword cut out of cardboard. There is really no limit to the number of characters we can represent if we are at all ingenious. The second picture shows Nell Gwynn. A girl from a charity school, as shown in the third picture, generally meets with much applause, and often wins a prize, if prizes are awarded, for the best dress. The last picture shows how a peaceful schoolboy can easily be transformed into a bold, dashing pirate by the addition of a stocking hat, a cardboard sword, and a sash of some coloured material, or even a shawl.



These fancy costumes of a cowboy, a Welsh girl, and a fireman are made up of things found in most homes. The Welsh hat is made of black or brown paper, and the fireman's helmet of cardboard and paint.

A FANCY-DRESS TEA-PARTY

CONTINUED FROM 5114

On dull winter afternoons we are often forced to amuse ourselves indoors instead of in the garden and fields. There are many interesting ways of spending a wet afternoon in the house, and perhaps one of the best is to arrange a fancy-dress tea-party.

When we invite our friends we should not let them know what we intend to do, but should tell them as soon as they arrive in the house. If this is done it will cause much more pleasure and satisfaction all round than if elaborate preparations are made, for the great thing is to spend nothing at all upon the dresses, but to make them up from the everyday materials that are found in the house.

It is really wonderful what striking dresses we can make from curtains and table-covers and similar things, and we can see for ourselves the success of the plan by the pictures above and on page 5194.

When we have decided upon a character, we must begin to look round for materials to enable us to dress for the part. This is where our skill in dressing up will come in, for we must not expect to find the exact thing that is suitable.

One of the great pleasures of a fancy-dress tea-party is the search that takes place for the things we require. It is fine fun to ransack the lumber-room, and hunt in various places for cast-off clothing; but we must be very careful not to do any damage or to go where we are forbidden. Moreover, we must ask permission to wear anything that we may want.

In connection with our fancy-dress tea-party we should offer prizes. This will make the dressing up much more interesting. The prizes need not be expensive, boxes of chocolates, cheap books of poems, or something similar will do very well.

Not only should we offer prizes for the two best dresses, but we should also award a prize for the least skilfully made costume. This should be kept a secret until the voting is all over. Then it will come as a great surprise, and create a lot of fun.

Little slips of paper may be handed round to all the guests, who should be asked to record their votes upon them, and drop them into a hat or box. When all have voted, we find out whose dress has received the most votes, and award the owner the first prize, the one who receives the second greatest number of votes getting the second prize, and the one who obtains the fewest votes receiving the consolation prize. If any two competitors secure the same number of votes, it is as well to ask all the competitors to vote again.

Some parts of certain costumes are rather difficult to get, and in such cases we may find that stiff cardboard or brown paper will come in very useful. The dress in the first picture on page 5194 is made entirely from white cardboard and a window curtain. The cardboard breastplate and head-dress have been decorated with a little gold paint that was found in the nursery, and the spear was taken off the wall of the hall.

If we have not a spear in the house, we can easily make one from a bamboo cane, cutting the spear-head out of stiff cardboard and pasting it into a slit at the top of the cane.

The helmet of the fireman in the picture on this page is also made of cardboard painted with gold paint. The cowboy's lasso is just an ordinary clothes-line from the laundry. Material really counts for very little; ingenuity is everything.

THE ADJECTIVE LETTER

One of the very best games for the fireside is the adjective letter, which can be played by any number of children—the more the merrier. Nothing can be simpler, but few things cause more hearty laughter.

All that need be done is for one member of the party to write a letter full of blank spaces. These blank spaces should take the place of adjectives; and when the letter is ready the writer should call upon the party, one by one, for adjectives. He should put the adjectives down in the order in which they are spoken. The writer of the letter should not contribute adjectives himself, as the fun of the adjective letter lies in the quite accidental association of words. A member of the party may, for instance, frequently call himself or herself very unpleasant names, and the most ridiculous things come together when the blanks are filled up.

Here is a letter with blanks, which will show exactly how the game should be played:

Dear People,

The new year has now begun its journey, and this is the time for making resolutions. The future of our lives is before us, and we set out on a journey through another year, full of hope ahead, and the memory of a Christmas behind. What a year the past has been! And what a year this one is going to be! Tommy will be six; Nancy will be eight, and every member of this party will be a year older when this year is past. That giant Old Age, who captures us all, creeps slowly on his way, ready to seize us in his grip when something like a hundred more years have come and gone. But let us make a resolution that will terrorise this enemy of childhood: let us one and all agree, on this very day, to be true to the Children's Encyclopædia, which keeps its readers young. With such a friend no child can ever be old, and we few, we band of friends, will look forward and say to all the world that we will be . With much love to all of you, my very people, I beg to sign myself,

Your Friend.

It is, of course, much more easy to write a letter about a particular party or a particular event, because the writer can make the letter much more interesting by bringing in the names of all the members of the party, or by referring to anything specially interesting to them. This letter, however, may be helpful at the beginning. Here it is given with the blanks filled up. The adjectives, which are printed in a different type, were all put in by chance.

Dear *Happy* People,

The *clean* new year has now begun its *rollicking* journey, and this is the *pretty* time for making *little* resolutions. The *high* future of our *glorious* lives is before us, and we set out on a *tender* journey through another *noisy* year, full of *stupid* hope ahead, and the memory of a *fair* Christmas behind. What a *dark* year the past has been! And what a *blue* year this one is going to be! *Dull* Tommy will be six; *horrid* Nancy will be eight; and every *simple* member of this *gracious* party will be a year older when this *dignified* year is past. That *grave* giant Old Age, who captures us all, creeps slowly on his *noble* way, ready to seize us in his *broad* grip when something like a hundred more *serene* years have come and gone. But let us make a *straightforward* resolution that will terrorise this *grand* enemy of childhood: let us one and all agree, on this very *green* day, to be true to the *beautiful* Children's Encyclopædia, which keeps its *loving* readers young. With such a *splendid* friend no child can ever be old, and we *joyful* few, we *grateful* band of friends, will look forward, and say to all the *stately* world that we will be *brilliant.* With much love to all of you, my very *ridiculous* people, I beg to sign myself,

Your *Perfect* Friend.

The longer the letter is, the more fun it is sure to give, and parties are not likely to get tired of this sort of entertainment if the letters are drawn up so as to be personally interesting to every member of the party.

THE GAME OF ORANGES AND LEMONS

In the game of oranges and lemons the two tallest players stand opposite each other with their clasped hands held up to make an arch. One of these players is Orange and the other Lemon, but the rest of the players are not allowed to know which is which. A line is then formed in single file, and, as it passes under the arch, Orange and Lemon sing these words:

"Oranges and lemons,
Say the bells of St. Clement's;
You owe me five farthings,
Say the bells of St. Martin's;
When will you pay me?
Say the bells of Old Bailey;
When I grow rich,
Say the bells of Shoreditch;
When will that be?
Say the bells of Stepney;
I'm sure I don't know,
Says the Great Bell of Bow.
Here comes a light to light you to bed;
Here comes a chopper to chop off your head!"

With the last words the arch descends on the player who is passing beneath, and he is a prisoner. He is then asked, in a whisper, if he will be an orange or a lemon, and when he has replied in a whisper, he is sent to stand behind the one chosen. The march now begins again; and when, one by one, all in the line have been served in this way, a mark is placed on the floor, and all the oranges, holding to each other from behind, pull against all the lemons. The side that succeeds in dragging the other side well over the mark on the floor wins the game.

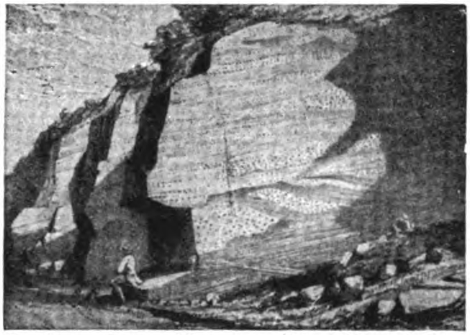
HOW TO KNOW THE ROCKS

It is very interesting, not only to those who are ambitious to become skilled geologists, but to all of us, to be able, as we go about in different parts of the country, to tell what kind of rocks there are round about us. Especially does it add to the interest of a railway journey if, as we pass through cuttings or enter and leave tunnels, we can, on looking out of the windows, say what are the rock formations that we are passing, and to what period of the world's history they belong.

As we read in that part of this book that begins on page 2881, the earth's crust is made up of various layers of rock, some of it formed by the action of water, and other parts due to the action of fire. Then we read on page 4246 how to make a collection of rocks that shall teach us a great deal about the earth's history. But if we can get to understand, in a general way, by the appearance or the shape of the hills and cliffs, the particular kinds of rock of which they are made, we shall find an added interest in all we know and read of the earth's past history, away in the remotest times, and we shall know, also, where to look for new specimens to go into our collection of rocks.

Limestone rocks, showing the well-marked layers

Of course, when the surface of hills and cuttings is covered with soil and is grown over by grass and ferns and bushes, it is impossible to see the rock under the soil. Then, again, where the bare surface of the cliff is exposed, the rock is sometimes so affected by the action of the weather that it is almost, if not quite, unrecognisable to the eye at a distance.


Conglomerate, or pudding-stone, with pebbles embedded

When the rocks themselves can be seen exposed to view, as in a more or less perpendicular cliff or in a very steep cutting, it will be at once noticed that the rock has one of two general characters. Either it is in layers, or *strata*, as they are called, or it has no such regular arrangement. Although not invariable, it may usually be taken for granted that the stratified rocks—those in layers—were formed by the action of water, while the non-stratified, or irregular rocks, are the result of fire. There are some formations of rocks known as metamorphosed, or changed rocks, which are more or less in layers, though these are not so pronounced as the stratified rocks. They were originally formed by water, but have since been affected by fire, and so changed that they have little resemblance to their original form.

First of all, we shall learn the character and appearance of some of the stratified rocks. There is limestone, which is so much used for building, making cement, statuary, and other purposes. It varies a great deal, being sometimes white, resembling loaf-sugar in both colour and texture. An exposed layer of this is very striking. Limestone is sometimes cream-colour or dull yellow, varying to blue-grey, and while it is often close grained, or built up of tiny crystals, it is also at other times like chalk. Marble is really a limestone. There is a sort of limestone called oölite, which is made up of round grains that give it the appearance of a fish's roe. A bluish variety found in Indiana is a popular building stone. Many varieties of marble of almost every color are found in the United States, and Vermont, Tennessee, and Colorado have many large quarries which employ thousands of men. Very little marble fit for statuary has been quarried in the United States, though it is believed that much exists.

In chalk cliffs we see many nodules, or rounded lumps, of a hard, black, or grey, or brown rock, which, when split, have a more or less transparent edge. These pieces are made of the ordinary common flint. Sandstone looks like what its name implies—a stone made up of grains of sand. It varies, of course, according to the size and colour of the grains, some sandstone being coarse and other fine grained, while the colour may be red, brown, yellow, or green. The strata, or layers, are usually very plain. It is the ease with which some kinds of sandstone can be split along the layers that renders this particular rock so useful for many purposes. The brown sandstone once so popular for building in New York came from Portland, Connecticut. It is also found in New Jersey.

Conglomerate, or pudding-stone, can usually be identified. As we pass through a cutting, or see it along the face of a cliff, it looks, as its name indicates, like a plum-pudding. Big and little pebbles are thickly embedded in a layer of sandstone, and look something like the plums and currants in a Christmas pudding. When the pebbles are sharp and angular instead of rounded, as we sometimes notice, the rock is called breccia.

The rocks formed by fire are as varied as those that owe their construction to the action of water. Granite we all know, whether it be red or grey, because it is the stone used for curbs in all our towns and cities. A pitch-like stone, varying in colour from green to brown and yellow, that may be seen in veins or masses bursting through other rocks in Europe or South America, is pitchstone. Basalt is easily recognised by its black, uniform colour and its curious structure, which is in columns, like the Giants' Causeway, which we see on page 4821, and on the shores of Lake Superior.

Very often we see crossing another rock a vein of a dull, dirty-green colour, streaked with brown or red. This is the well-known serpentine that looks so beautiful when polished and made up into ornaments. It is found usually with the limestone rocks.

The metamorphosed, or changed, rocks have, as might be supposed, an appearance something like both the other kinds of rock—those formed by fire and those by water.

There is a rock that looks like granite, but the minerals of which it is composed are arranged more or less in layers. It has been called stratified granite, but it is really gneiss. Another rock, which has a slaty appearance at a distance, and consists of layers of white quartz and mica, is known as mica-schist. The thickness of the layers of each mineral vary greatly, but mica-schist always has an appearance that once recognised cannot be mistaken. These are the two principal rocks of the metamorphose class that occur.

It is, of course, very difficult to give such details as shall enable us to identify all the different kinds of rocks found in the United States, but the hints given should prove useful. And if when we travel or go for a holiday we take a small geological map with us, we shall be better equipped for our recreation of identifying the various formations of rock through which we pass.

A DAINTY MUSLIN WINDOW-CURTAIN

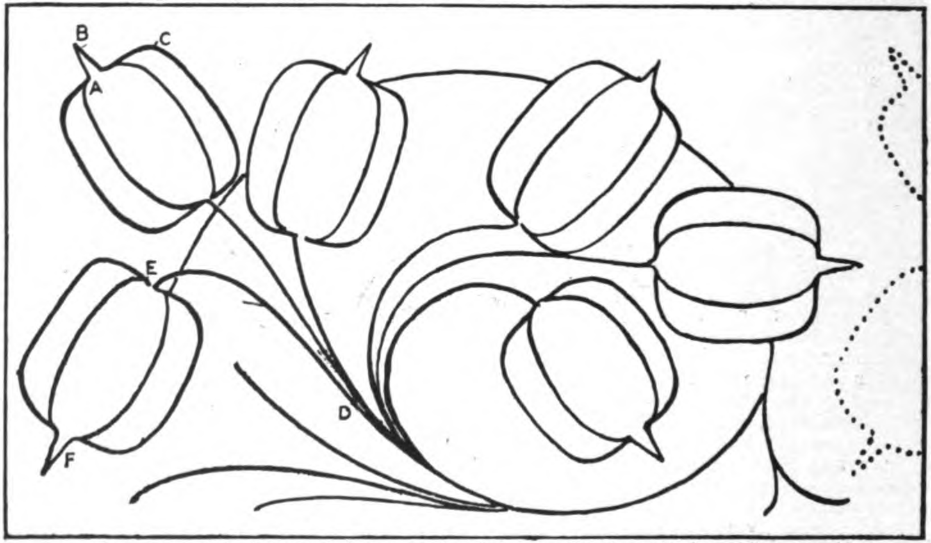
THE idea illustrated in picture 3 on the next page is a charming way of decorating short, white, book-muslin curtains, and the wonderful thing about it is that there is no need to have the pattern drawn on to the material, because this kind of muslin is transparent enough to be seen through. The pattern, which is drawn on paper, is therefore pinned underneath the muslin, and the work done on top.

The particular design shown below, which is made from the honesty plant, is a repeating pattern—that is to say, we work one section and shift it along to continue, and the design is arranged to join on neatly, as indicated. The best thread to use is white flax thread—medium fine—which is cheap. We should cut it so that long threads are left to work with, and use a medium-sized darning-needle.

We must measure our window, cut the muslin to fit, and make the hem before we begin our pattern, which must be traced on to a sheet of note-paper from the picture, and outlined in ink. With two pins it can be fixed underneath the muslin, on the left side, two inches above the hem.

We all know the darning-stitch, which is described on page 3515; that and ordinary running stitch is all we have to use. If we have forgotten how to darn, we should turn to page 3515, where it is fully explained.

Now to begin: we tie a very tiny knot in the thread, and put the needle in at point A



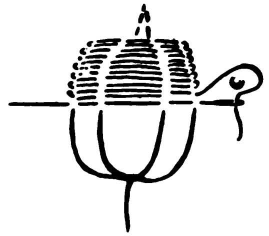
1. The pattern of the honesty design, exact size, to be pinned underneath the muslin as a guide

in the pattern picture, behind the muslin; the pattern can be bent for the purpose. We run three stitches to B, and three back again to A, a long stitch to C, and then start darning from side to side of the honesty shape. We take three long stitches on top and two tiny ones underneath, leaving a small loop at each end until the shape is covered and we are down to the stalk. We run down the stalk and up the next one, from D to E, where we begin to darn the next honesty shape, this time working upwards. Finish off with a back stitch at the point marked F.

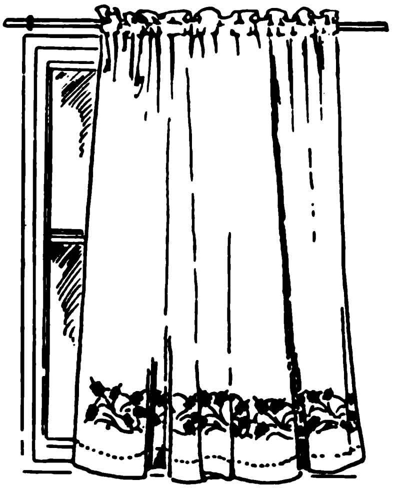
This should almost finish the thread, but even if we still have some cotton left we should begin with a new thread at the top of the next shape. Joins in the middle of a shape must be avoided. We continue like this, running all the stalks and darning the shapes. The paper pattern underneath our work makes it firm, and prevents puckering. We should notice that the two little stitches are always made on the inner lines, which are to help us to keep them straight, and also form part of the pattern.

For those of us who do not know how to trace off the pattern, this will explain. Buy a sheet of tracing-paper and cut off a piece big enough to cover picture No. 1. Lay it on top, and go over the whole pattern, which will clearly show through, in pencil. Remove it and pin it to a piece of stout note-paper, and then get a piece of carbon-paper, such as clerks use in their bill-books, and lay that in between. Go over the pattern on the tracing-paper again, and a clear impression from the carbon will be left on the sheet of note-paper below. A charming table-centre can be made with this pattern by using it as a border all round a square of fine muslin.

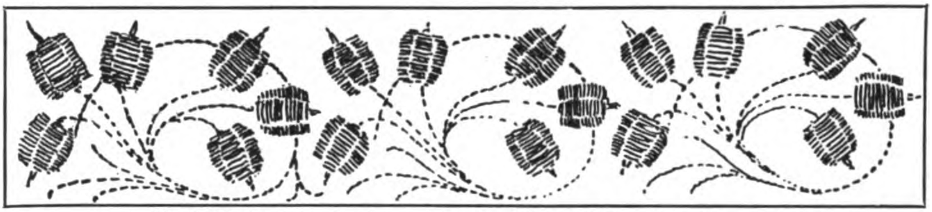
It should be finished with a hem one inch wide, and backed with a piece of soft pink silk to show up the pattern. Or, if we like, we can make a little pin-cushion for someone's birthday by using one "repeat" of the pattern only, darned on to a piece of muslin cut into an oblong shape measuring 6½ inches by 4½ inches. But, instead of darning it in thread, we can use mallard floss silk in palest pink, costing a few cents a skein. When the darning is done, cut another piece of muslin, the same size, for the back, and join these two pieces neatly together by running them round three sides, half an inch from the edge. This makes the little bag to contain the cushion, and when we have turned it right side out, it is quite ready to go on.



2. The darn



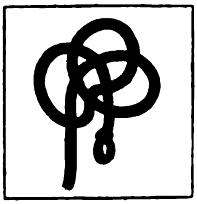
3. The curtain complete



4. The finished pattern for the curtain, showing how the sections are repeated.

A BUTTON MADE FROM A SHOE-LACE

It may interest us to know how we can make a coat-button from an ordinary leather shoe-lace. We take the shoe-lace and make a loop at one end, just as we should make a loop in a piece of string. The loop should not be too big, as it is to be used for attaching the button, when completed, to a coat. The plan to follow in making the button is to tie a series of knots, taking care to keep the button round and neat as we make it. It is sufficient to keep on tying simple knots, one on top of another, until the button is the required size. But if we want to make a really attractive button, we should loop the shoe-lace on the principle shown in the picture. We need not stop at three loops, but can continue the series on the same plan, and then pull the whole tight, when, if we have been careful, we shall have a neat, round button. A little practice will soon enable us to invent other designs for our shoe-lace buttons. The best plan is to practise for a time with a piece of thick string until we thoroughly understand how to tie the knots so that the button may be round, like a little ball. The final knot should be securely fixed.



How to make the button

MAKING A COLLECTION OF WOODS

A GREAT deal of amusement and instruction is to be obtained from a collection of different kinds of woods, and such a collection it is within the power of each one of us to make. The woods of the different trees are wonderfully varied in weight and solidity and marking, and by preparing sections of these we have a collection that is pleasing to the eye and that need take up very little room in the house.

Sections of wood for our collection should be made *across* the trunk, and they should be thin enough for the light to pass through. With a little practice such sections can readily be sawn. A good saw is necessary, and if the wood be dry it should be damped, so that the different parts of the material may hold together and a smooth section be provided.

WHERE TO OBTAIN SPECIMENS

Specimens for our collection may be obtained in different ways. Of course, if we live in the country, especially in the neighbourhood of woods where trees are being felled, we may get permission to take sections from the trees. But it is astonishing how many really excellent and serviceable specimens are to be obtained for nothing at all in saw-mills, lumber-yards, cabinet-making establishments, carpenters' shops, and so on. In fact, almost any place where different kinds of wood are used and dealt with is sure to provide us with some specimens, at any rate. While it is especially to be desired that our sections should be across the trunk of the tree, if this is difficult or impossible, sections cut lengthwise are by no means to be despised.

HOW TO MOUNT THE WOODS

Our specimens should be as complete as possible—that is, the sections should be as large as we can obtain and conveniently store; but great size is not essential, and quite small sections a few inches square are quite large enough to show the characteristics and markings of the different woods. It is not necessary to mount the specimens, although, of course, the collection is much more presentable if every piece of wood is properly mounted.

It is necessary that we should be able to hold the wood up to the light and see its texture; but this may be easily done if we gum or glue the wood down upon a sheet of thick paper or card that has a neat oval opening cut in it, just like the opening in a mount for a photograph. In fact, if we can afford to buy them, photograph mounts, which may be purchased at any photographic shop and at most stationery shops, would make admirable mounts for our wood.

We should see to it that, as far as possible, our specimens and their mounts are uniform in size, as they will look much neater if they are, and can be kept one above another in a box or letter-case. A fly-leaf of paper should be pasted on to each mount and folded over the specimen to keep it clean and undamaged. Upon this sheet, too, should be written the name of the tree from which the wood comes, and the use to which the particular kind of wood is generally put. The more interesting and extensive the facts we can write down and keep attached to a specimen, the more valuable does it become.

IMPROVING THE COLLECTION

To the clever boy or girl, many ways of improving the collection, both in appearance and in value, will occur. For instance, the mounts of the plain card or paper may be decorated in some neat way that will not distract attention from the specimen itself. Then, if we can obtain, in course of time, photographs or good printed pictures of the different trees represented in our museum of woods, the collection will be much more instructive.

It will be very interesting, too, if we live in the country, to have a collection within a collection, by keeping together specimens of the woods of the different trees that grow in our own neighbourhood. Then from time to time we can arrange our specimens round a room, and thus provide our friends with an entertaining exhibition. Trees that do not grow where we live, and whose woods we are unable to obtain locally, are often to be found in the districts where our friends live, and so, by getting these friends interested in our collection, we may obtain some new specimens from them. This is a specially good scheme if we have friends living abroad.

SOME WOODS TO OBTAIN

Our woods should, of course, be classified —that is, arranged in a proper order, and the proper order is according to the families of the different trees. There are the conifers, or pine family. It includes the silver fir, a white pine used for floors; the Norwegian spruce fir, the ordinary white wood of the carpenters; Southern pine, used much by builders; and both white and red cedars; the larch, used for house and boat building; and the well-known yew, formerly employed in the making of bows for English archers.

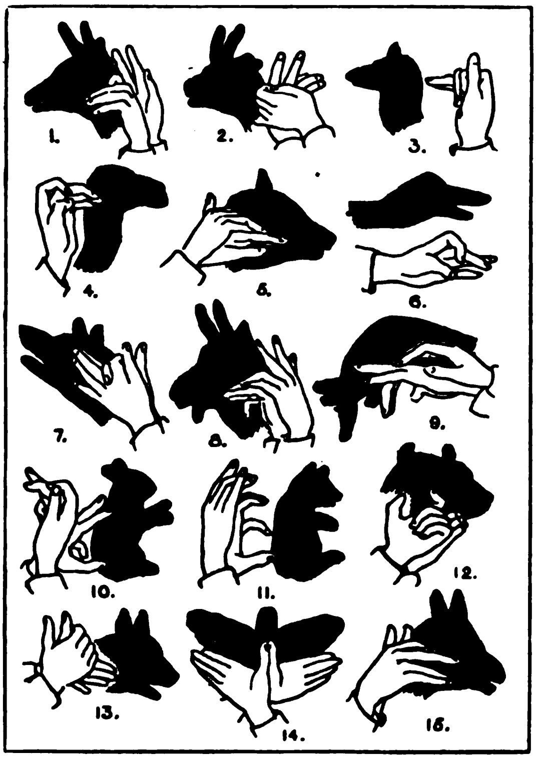
Then there are the various kinds of leaf woods, as distinct from the woods of trees that have needle-shaped leaves,like the pines. These will be found much denser in texture than the wood of trees of the pine family.

There is the oak, the most useful of all our timber trees; the elm, a wood which is valuable on account of the fact that it will not split or warp; the ash, a tough, elastic wood, used much by carriage-builders and for oars; the wood of the various fruit-trees, such as plum, cherry, and chestnut; the beech, a very hard timber; the hawthorn, a reddish-white wood; the tulip-tree, yellowish white in colour; the box and pear, used by engravers; maple, a reddish wood; sycamore, used for machinery and in the manufacture of charcoal; alder, another wood reddish in colour; walnut, willow, silver poplar, aspen, birch, elder, and hazel. All these have their own peculiar colours and markings and characteristics, and are well worth obtaining and keeping carefully in our timber collection.

THROWING SHADOWS ON THE WALL

THE study of shadows is a very important branch of science. In the part of this book that begins on page 1865, for instance, we read about eclipses, and we learn that when an eclipse of the moon takes place what really happens is that the shadow of the earth is cast upon the surface of the moon by the sun, and the shape of this shadow is one of the reasons for believing the earth to be round, or spherical, in shape.

But, in addition to the fact that there is science to be learnt from a study of shadows, it is worth knowing that a great deal of amusement and pleasant recreation may be obtained by casting shadows upon the wall with no other aid than that of the hands. Of course, we require a good light from a lamp or gas or electric light to throw the shadow, and we need some white or light flat surface upon which the shadow may be cast, but beyond this no apparatus at all is necessary.



SHADOWS MADE BY THE HANDS ON THE WALL
1. Reindeer 2. Chamois 3. Hound 4. Camel 5. Pig 6. Goose 7. Wolf 8. Goat 9. Elephant 10. Hare 11. Teddy Bear 12. Ox 13. Dog 14. Butterfly 15. Donkey

Very little is needed in the way of directions. We must, of course, have our hands between the light and the wall or other surface upon which we wish to throw the shadows; and in the pictures on this page we see a number of shadows of animals that any clever boy or girl can make with a little practice. We should imitate closely the position of the hands as shown in each picture until we get the shadow clearly and correctly. Let us repeat all the different forms over and over again, and after a little while we shall remember the position of the hands without having to refer to the picture.

Having succeeded in learning to make these various forms, we must next learn to give action to the shadows by moving the fingers or thumbs so that the animals appear to be eating, or moving their ears or legs. Much fun, for instance, can be caused by clever movements of the Teddy-bear shadow. It also adds greatly to the effect if we can imitate the sounds made by the different animals and birds — barking, quacking, grunting, and so on, as the case may be.

The shadows shown in the picture are merely a few of hundreds that may be produced by different combinations of the hands and fingers. New forms, or rather additional forms, we shall invent as we practise making shadows; and it is remarkable how the same position of the hands, or almost the same position, will give entirely different shadows provided the hands are held at different angles to the light, and a finger or two be moved this way or that, as the case may demand.

Of course, the brighter the light the blacker will be the shadow, and the outline will be clearer or less defined as we move our hands nearer to the light or to the screen or wall. For all ordinary purposes, and for an entertainment given on the spur of the moment, a light wall or blind is quite suitable, but some who are particularly quick and skilful in inventing and producing shadows may like a special screen upon which to give their entertainments. This may be made quite roughly, of any size, by merely nailing or screwing four battens together to form a square or an oblong, and covering the framework, thus built up, with cheap cloth. It would, of course, be quite flat, and would pack away, when not in use, behind a cabinet or chest of drawers. In using a screen, we should, of course, let the audience look upon one side of it, while we stand on the other side, with the light that is to cast the shadows beyond us. The spectators would see the shadows through the screen—that is, on the side opposite to that upon which we are casting them.

Those who are even more ambitious and have the time to spend in making a more elaborate screen can, if they so desire, improve this by painting upon it curtains, giving it the appearance of a stage. This, of course, adds greatly to the appearance of the shadows from the spectator's point of view, while it really costs very little indeed. But, as explained, no accessories are actually needed.

PROVERB GAMES FOR THE FIRESIDE

There are a number of interesting games with proverbs that will give much fun at an evening party or at any time that a number of friends are met together. We **read of one such game on page 2173, and** there is another somewhat similar, in which the task set is for one player to guess a proverb that has been decided upon by the other members of the party who are present.

CRYING PROVERBS

The game of Crying Proverbs is played in the following way. One player retires from the room, while the others settle upon some proverb, and each takes one word of the sentence. Then the player outside comes in, and, at a signal, all the others call out their words at one moment. From this hubbub of mixed sounds the player from outside has to try to learn the proverb that has been selected. If at first he does not succeed, the proverb can be cried out again and again, until he does guess it or gives up in despair.

Of course, there are a number of points to be considered that add to the difficulty and consequently to the amusement of the game. It is better not to choose a proverb that has in it some distinctive key-word, for if the guesser hears this he is likely to answer correctly at once. For example, the word "broth" would at once suggest "Too many cooks spoil the broth." Then it is wise to choose a fairly long proverb, so as to have as many players as possible calling out the words, rendering the sounds the more confusing.

ACTING PROVERBS

In this game each player takes it in turn to be the actor, and he has to go through some actions which will suggest a proverb. The other players watch him, and try, from what they see him do, to guess his proverb. For instance, the action of sewing would suggest "A stitch in time saves nine." Carrying a cup very carefully across a room would mean "A full cup must be carried steadily." A pebble rolled along on the ground, and then picked up and looked at as though something were expected to be found upon it, would be "A rolling stone gathers no moss." There is, of course, good scope for ingenuity here.

PROVERB GAMES ON PAPER

There are several proverb games that are played with pencil and paper. A good game to play round the fire is for each player to write upon a slip of paper the vowels only of some popular and well-known proverb. The papers are then exchanged, and everybody has to try to discover the proverb of which he has only the vowels. Here is an example: i e a o a a a e a a i. This looks rather formidable, but it is really the skeleton of the proverb "Give a dog a bad name and hang him." If this game is thought too difficult, we may play a similar game by taking well-known proverbs and omitting every other letter or every third letter.

Another similar game is to break up a short proverb into its letters and arrange these in alphabetical order, thus: d d e e e e g i n n n o o s s w w. If it is considered too difficult, one word may be given of the proverb as a key. For instance, in this example the word "weeds" might be given. The whole proverb is "Weeds need no sowing."

At a proverb party a good puzzle is this:

We is do

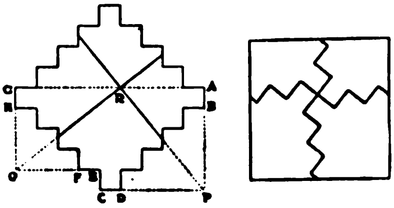
This represents a well-known proverb in an abbreviated form. That will be a clever boy or girl who guesses the solution without having heard it before. The proverb represented is:

"Well begun is half done."

In all these proverb games it is essential that the proverbs chosen should be really popular ones that are quite well-known to most people.

SOLUTION OF THE SQUARE PUZZLE ON PAGE 5112

We read on page 5112 how Kenneth was offered a prize by his father if he solved a curious puzzle. He tried for a long time before he could do it, but just before bedtime came he was successful, and his father was very pleased. If we wish to do what Kenneth did, this is how we must proceed: Prolong the lines A B and C D to meet at the point P; and also the lines E F and G H to meet at Q. Then, along the line A G, measure A R equal to B P. If we now cut along the straight lines P R and Q R, we shall have four pieces which fit together into a square, as shown in the second diagram. The original figure was built up of rows of squares, beginning with a row of nine. The puzzle is solved in exactly the same way if we begin with a row containing any *odd* number of squares, the successive rows each containing two squares fewer than the previous row, so that we always arrive at a single square top and bottom.



How the square was made

SOLUTIONS OF THE PLANT PUZZLES ON PAGE 5108

In the botanical puzzle game on page 5108, descriptions were given of six different plants, and we had to name these plants of such varied characters, uses, and appearance from the descriptions given. The correct solutions are as follows: 1, Bladderwrack; 2, Mushroom; 3, Sweet-scented vernal grass; 4, Hyacinth; 5, Wheat; 6, Cocoanut palm.

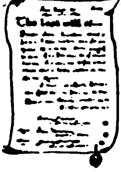
THE NEXT THINGS TO MAKE AND THINGS TO DO BEGIN ON PAGE 5287

THE STORY OF A BEAUTIFUL THING

I DO not know anything more beautiful than the Last Will of Charles Lounsbury. I do not know anything which brings home to us with such quiet power the truth that the best things belong to us all. We are rich by being alive. We may walk penniless in a country lane with all the real wealth of the world; we may be millionaires at the bank and be poor in all that is real wealth. All this is said most beautifully in this little 'Will,' which I first saw mentioned in 'Public Opinion,' an admirable paper for all who love life. It was so beautiful that I could not rest until I had the 'Will' itself, and now that the author has sent it to me I cannot help finding this corner for it. The writer of the 'Will' is Mr. Williston Fish, of Chicago, a man of great reputation in law and finance in that city. Charles Lounsbury was a "big, strong, good man" far back in Mr. Fish's family, and so Mr. Fish gave his name to the 'Will.' There are many rather unusual legal words in it, but their meaning is plain, and we can all read this 'Will' and feel, whatever our bank-books say, that we own the very earth.

THE LAST WILL OF CHARLES LOUNSBURY

CONTINUED FROM 5164



He was stronger and cleverer, no doubt, than other men, and in many broad lines of business had grown rich, until his wealth exceeded exaggeration. One morning, in his office, he directed a request to his confidential lawyer to come to him in the afternoon; he intended to have his will drawn. A will is a solemn matter, even with men whose life is given up to business, and who are by habit mindful of the future. After giving this direction, he took up no other matter, but sat at his desk alone and in silence.

It was a day when summer was first new. The pale leaves upon the trees were starting forth upon the yet unbending branches. The grass in the parks had a freshness in its green like the freshness of the blue in the sky, and of the yellow of the sun—a freshness to make one wish that life might renew its youth. The clear breezes from the south wantoned about, and then were still, as if loth to go finally away.

Half idly, half thoughtfully, the rich man wrote upon the white paper before him, beginning what he wrote with capital letters, such as he had not made since, as a boy in school, he had taken pride in his skill with the pen:

In the Name of God, Amen.

I, Charles Lounsbury, being of sound and disposing mind and memory—he lingered on the word memory—do now make and publish this my last will and testament, in order, as justly as I may, to distribute my interests in the world among succeeding men and women.

And first, that part of my interests which is known among men and recognised in the sheep-bound volumes of the law as my property, being inconsiderable and of no account, I make no account of in this my will.

My right to live, it being but a life estate, is not at my disposal, but, these things excepted, all else in the world I now proceed to devise and bequeath.

And first, I give to good fathers and mothers, but in trust for their children, all good little words of praise and all quaint pet names, and I charge said parents to use them justly, but generously, as the needs of their children shall require.

I leave to children exclusively, but only for the life of their childhood, all and every, the dandelions of the fields and the daisies thereof, with the right to play among them freely, according to the custom of children, warning them at the same time against the thistles. And I devise to children the yellow shores of creeks and the golden sands beneath the waters thereof, with the dragon-flies that skim the surface of said waters, and the odours of the willows that dip into said waters, and the white clouds that float high over the giant trees.

And I leave to children the long, long days to be merry in, in a thousand ways, and the Night and the Moon and the train of the Milky Way to wonder at, but subject, nevertheless, to the rights hereinafter given to lovers; and I give to each child the right to choose a star that shall be his, and I direct that the child's father shall tell him the name of it, in order that the child shall always remember the name of that star after he has learned and forgotten astronomy.

I devise to boys jointly all the useful idle fields and commons where ball may be played, and all snow-clad hills where one may coast, and all streams and ponds where one may skate, to have and to hold the same for the period of their boyhood. And all meadows, with the clover-blooms and butterflies thereof; and all woods, with their appurtenances of squirrels, and whirring birds and echoes, and strange noises; and all distant places which may be visited, together with the adventures there found, I do give to said boys to be theirs. And I give to said boys each his own place at the fireside at night, with all pictures that may be seen in the burning wood or coal, to enjoy without let or hindrance, and without any incumbrance of cares.

To lovers I devise their imaginary world, with whatever they may need, as the stars of the sky, the red, red roses by the wall, the snow of the hawthorn, the sweet strains of music, or aught else they may desire to figure to each other the lastingness and beauty of their love.

To young men jointly, being joined in a brave, mad crowd, I devise and bequeath all boisterous, inspiring sports of rivalry. I give to them the disdain of weakness, and undaunted confidence in their own strength. Though they are rude and rough, I leave to them alone the power of making lasting friendships, and of possessing companions, and to them I give all merry songs and brave choruses to sing, with smooth voices to troll them forth.

And to those who are no longer children, or youths, or lovers, I leave Memory, and I leave to them the volumes of the poems of Burns and Shakespeare, and of other poets, if there are others, to the end that they may live the old days over again freely and fully, without tithe or diminution; and to those who are no longer children, or youths, or lovers, I leave, too, the knowledge of what a rare, rare world it is.

THE MUSIC OF THE WILLING HEART

A POOR old fiddler was trudging late one night through Epping Forest, when a little man in a red cap met him.

"I want you to come and play at a wedding dance," he said.

"I'm sorry, sir," said the fiddler; "but I and my fiddle are too old for that sort of thing. What with my rheumatics and my broken instrument, I can only make such a screeching noise that people are glad to give me a penny to stop playing and go away."

"Never mind," said the little man. "If you will only play with a willing heart, you'll play well enough!"

He took the old fiddler to a lighted cave in the depth of the wood, and then led him down an underground passage, which opened out into a splendid hall. Hundreds of pretty little fairies came dancing with delight round the poor old fiddler, crying: "Do play us a waltz! We have never heard a waltz! Do play for us!" Remembering that it was only a willing heart that they wanted, the old beggar put his old fiddle under his chin and began to play. To his surprise, his arm and fingers became as strong and supple as a young man's, and his broken fiddle gave out a tone of wonderful beauty. Rocking himself to and fro with joy at the fine music which he was making, he played for hours and hours without feeling the least fatigue; and when he had played every tune that he could remember, one of the fairies said:

"Willing heart shall have a willing hand. Henceforward you shall always play as well as you played to-night!"

When the old fiddler woke up next morning, he found that he had become an excellent violinist, and that he had grown about forty years younger; while his cheap fiddle had turned into a magnificent violin with a splendid tone.

THE FABLES OF ÆSOP THE SLAVE

THE SICK KITE

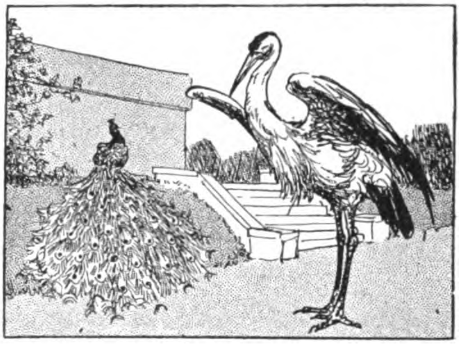
A KITE had been ill for a long time. Thinking that he was dying, he begged of his mother to go to all the churches and ask that prayers might be offered up for his safe recovery.

"How can you expect anyone to pray for you," said the old kite, "when you have, during your whole life, robbed and thieved of the very persons whom you now expect to help you?"

It is useless to repent when too late.

THE PEACOCK AND THE CRANE

ONE day a peacock and a crane chanced to meet. The peacock strutted past, spreading its fine tail and looking with contempt upon the other.



"Well," said the crane, "fine feathers make fine birds indeed, but I think that it is a much grander thing to be able to do something and soar above the clouds, than to strut about on the ground to be looked at by every passer-by."

Those who are finely dressed should not scoff at their poorer companions.

THE OAK AND THE REED

A GREAT oak-tree which grew beside a river was blown down one stormy night. As it lay on the ground, in the morning it noticed a reed which grew close to the edge of the water, and had not been injured. The oak was surprised, and asked the reed how it could remain safe and uninjured in a storm which had been strong enough to tear up an oak by the roots.

The reed replied:

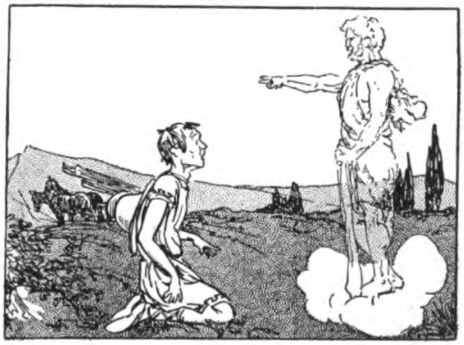
"I am safe because, instead of being stubborn and stiff, and trusting in my own strength, I yield and bend to the blast, which then goes over my head and does me no harm at all."

It is not wise to be stubborn; it is often safer to bend and give way.

HERCULES AND THE COUNTRYMAN

A COUNTRYMAN was driving his cart along a road filled with ruts, when one of the wheels stuck in the mud, and the horses were unable to draw the cart out of it. The countryman at once began to call upon Hercules to help him out of his difficulty.

"Put your shoulder to the wheel!" cried Hercules. "Whip up your horses and help them, for that is the only way to obtain the aid that you want."



Those are helped who help themselves.

THE WORLD ON A TABLE

"WELL," said an Orange, gazing about him, "it looks as if this is going to be a very nice dinner-party. I've been served up for dessert three nights in succession, and so far this is the finest thing in dinners I have ever seen. I don't think I should mind being eaten at a party of this kind, I really don't."

"My dear fellow," said a Cherry from another dish, "you make a great mistake if you think that you will enjoy being eaten at a refined dinner-party. I have seen a deal of life, and I assure you that there is nothing more terrible for an Orange, or a Pear, or an Apple, or a Melon, or a Banana, than to be eaten at a gentleman's dinner-table."

A shudder ran through all the other fruit-dishes.

"You see," said the Cherry, "refined people eat Oranges with knives. They peel you, scrape you, cut you up bit by bit, and then chew you to death. How different when a child gets hold of you! He makes only a tiny hole through your peel, pushes in a lump of sugar, and then sucks you gently and sweetly out of life. I declare that that is a delicious death. But a knife—horrible! Oh, how grateful I am that I was born a Cherry!"

"And I, that I was born an Olive!"

"And I, that I was born a Nut!"

"Tut, tut!" cried an old Melon. "What does it matter how one dies? For my part I am a philosopher. I take life and death as they come. It's my nature. But I'm a Frenchman."

"I've always longed to see France," said a fat Fig. "I've heard that it's a delightful country. Nice climate, plenty of revolutions, and frogs treated as chickens. Oh, scrumptious!"

"France is all right," replied the Melon easily. "Where do you come from?"

"From Turkey," said the Fig.

"I've heard of Turkey," said the Melon.

"We've just had a revolution ourselves," said the Fig proudly.

"I always thought," cried an Orange, "that Turkey was something that these horrible human beings eat at Christmas."

"When you come to think of it," said the Melon, rolling his eyes round the table, "we fellows here represent practically the whole world. And we are all on a single table! I am from France."

"I am from South Africa," said an Orange.

"And I from Spain," said another Orange.

"And I from California," said a third.

"My country is Tasmania," said an Apple; "it's young, but progressive."

"Oh, I hate young countries!" laughed an Olive. "Thank goodness, I come from Spain! A rare old stick-in-the-mud part of the world is Spain."

"I," said a Bunch of Grapes, "come from Worthing, in England. Rule Britannia! Excuse me, but I'm an Imperialist. Pretty place, Worthing. Such beautiful bathchairs, and you really never saw such elegant bathing-machines in all your life. Excuse me, won't you? But I really can't help it. Rule Britannia!"

"I'm in favour of islands," said a Banana. "My home is a rare pretty little piece of floating land. I come from the Canaries."

"I am entirely French," said a Cherry.

"Jamaica made me what I am," said a piece of Ginger. "Oh dear, what a lovely country that is! Jamaica, 'tis of thee! I could cry to think of it."

"Italy has the honour of having produced me," sneered an Olive.

"As for me," creaked a Nut, "I come from Brazil, and I wish I was back there again, I do indeed."

"Well," said the old Melon, "it is exactly what I told you; we fellows represent the earth. We have all crossed the sea, and we all meet together on a single dinner-table in London. Anybody setting eyes on us sees the world. Instead of eating us, these stupid human beings, if only they had the understanding, would sit round the table and ask us to tell them stories of what we have seen."

"I could tell them a few things about Brazil," said a Nut, "that would make their hair stand on end."

"Suppose," said a Spanish Orange, "that we beguile the time of waiting by telling each other stories of our different countries."

"To begin with," said a Banana, "in the Canary Islands, all the flowers are most splendid, and as for the insects, why, I assure you——"

At that moment a number of servants filed into the room, and took up positions on either side of the table. The butler cast his eye over the preparations, and said, with a frown :

" Those bananas do look common, that they do! How her ladyship can have such costermonger fruit on the table I can't imagine ! "

He looked over the table disdainfully, and sneered at the fine dishes of fruit that had been collected together from all quarters of the world.

" It is the same common-looking fruit that the costermongers sell from barrows in the streets. I can't think what is the matter with her ladyship ! " said he. As he left the room to announce that dinner was served, one of the Bananas whispered to the other fruits :

" He calls us common ! Fancy a fellow like that calling us common ! I should like to see him make a banana ! "

" Well, you know," said the Bunch of Grapes, " I'm half inclined to agree with him. He's an Englishman, and I can't help feeling that he's right. Excuse me, but, Rule Britannia ! All you foreigners, of course, can't understand my sentiments in the matter ; but really and truly——"

The door was thrown open, and in marched Sir Thomas Tupkins with Madame Pfeniger clinging to his arm.

THE LITTLE MAN AND THE DRUMS

A FARMER, who was on very friendly terms with a dwarf living on a hill in one of his fields, was in great perplexity. His little son was to be christened, and the dwarf would certainly expect to be asked to the ceremony. But it would never do, the farmer thought, for the dwarf to appear at so solemn a gathering ; the clergyman would be shocked, and the village people would not like it, and would always be talking about it.

When he was at his wits' end, the boy who looked after his pigs offered to arrange matters with the dwarf in such a way that not only should the little man of the hill stop away without being offended, but he would also send a handsome christening present for the farmer's little son.

The farmer instantly sent the boy off, and, taking a sack, the lad went to the hill and knocked. The dwarf let him in, when the young boy presented his master's compliments and requested the honour of the dwarf's company at the christening.

This greatly pleased the dwarf, who accepted the invitation, and added that he would send a christening present. Then he opened his money-chests, and telling the boy to hold up a sack that was on the floor, he poured a great deal of money into it, but not nearly enough to fill it."

" Is that enough ? " he asked at last.

" Well," said the boy promptly, " many give more, and few give less."

The dwarf then again began pouring money into the sack, and once more he asked the question :

" Is that enough ? "

" It is about what most people give," answered the boy.

The dwarf, not to be outdone, emptied the whole of his money into the sack, and asked again :

" Is that enough now ? "

The boy looked at the sack and saw that there was as much as he could carry, so he said :

" No one gives more, and most people give less."

This satisfied the dwarf, who now wanted to know who the other guests were to be.

" Oh, there is to be a great crowd ! First of all, there will be a bishop and three clergymen."

" That doesn't matter—they never take any notice of me," said the little man of the wood.

" Then," continued the boy, " there will be musicians, and we are to have some fine drums."

Now, the dwarfs cannot endure the beating of a drum, and when the boy said there was to be music the dwarf was greatly alarmed.

" Drums ! " he cried. " Oh, then I shall stop at home ! Thank your master for his invitation, but say I cannot possibly come."

Then helping the boy to get the sack on his back, he saw him to the door, which he afterwards closed and bolted.

GELERT, THE FAITHFUL DOG

KING JOHN of England had not much affection to spare for anyone. But there were two beings he really loved—his beautiful daughter, Joan, and his splendid greyhound, Gelert. And when Joan married Llewelyn, the Prince of Wales, he gave them Gelert as a wedding gift. Prince Llewelyn was a great hunter, and he, too, soon got to love the noble hound sincerely.

The first day he took Gelert out with him, the greyhound chased a stag from Carnarvon to a rock—which is now called Beth Gelert—where the stag fell dead from exhaustion.

Gelert was always the first hound to appear when Prince Llewelyn blew his hunting-horn at the castle gate. But one morning the greyhound did not answer the call. Putting the horn to his lips, the prince again blew long and loudly, and then called, " Gelert, Gelert ! " But the hound did not come, and, being unable to wait any longer, his master rode off to the hunt.

That day, however, he had little sport, for Gelert was not there. Tired, disappointed, and angry, he returned to his castle, and as he entered the gate the dog came bounding out with his mouth dripping with blood. There was a strange look in the eyes of the hound, which told the prince that something dreadful had occurred.

" Has he gone mad, and killed somebody ? " he exclaimed.

A terrible suspicion flashed across his mind. Princess Joan had a little son a year old, and when Gelert was not out hunting he was always to be found by the child's side. Prince Llewelyn rushed toward the room where his baby had been sleeping, and the hound followed him. A trail of blood led to the room. The prince drew his sword as he entered, and then recoiled in terror. There was a pool of blood on the floor, an empty, overturned cradle, and no sign anywhere of the child. Crouching down by the cradle, with a look of entreaty, Gelert began to whine.

Blind with rage, Prince Llewelyn turned upon him with uplifted sword, and thrust it through his heart, crying :

" Monster, you have devoured my son ! "

Giving a wild yell, the greyhound expired with his eyes fixed on his master's face. His dying yell was answered by a cry from beneath the cradle, and there Llewelyn found his little son unharmed, with its sleepy head resting on the body of a dead wolf. Now that it was too late, Llewelyn saw why Gelert had not come that morning when he sounded his horn. The wise and faithful hound had smelt out the wolf, and had fought and killed the fierce beast.

The prince was broken-hearted. " Although I cannot bring you to life, Gelert," said he, sadly, " I can keep alive the memory of your noble deed."

He buried the faithful dog by the rock where the stag that Gelert had chased from Carnarvon had fallen, and for hundreds of years people passing by the grave threw on it a stone, and the cairn they made is still called Beth Gelert, or the Grave of Gelert.

LE MALIN FERMIER ET LE NAIN

THE ENGLISH VERSION OF THIS STORY IS GIVEN ON PAGE 4798

UN fermier qui possédait une petite colline sur ses terres, ayant décidé qu'elle ne devait pas servir à rien, se mit à la labourer. Aussitôt un nain qui l'habitait en sortit et, furieux, demanda au fermier de quel droit il osait déranger son repos en labourant le toit de sa demeure. Le fermier s'excusa humblement, mais remarqua qu'il serait dans l'intérêt de tous deux que la colline fût labourée et qu'on y récolta une moisson.

Le nain refusa d'abord, mais le fermier fit de son mieux pour le convaincre. Il proposa de tout faire lui-même à la condition que le nain consentît à ce que, la première année, tout ce qui pousserait au-dessus du sol fût au fermier, et tout ce qui serait dessous au nain ; et la seconde année, ce qui serait au-dessous, au fermier, et au-dessus, au nain.

Le nain consentit à cet arrangement ; mais le malin fermier planta du blé la première année et abandonna les racines au nain, tandis qu'il prenait le grain ; et la seconde année, il planta des carottes, qu'il récolta en laissant au nain le feuillage inutile.

THE NEXT STORIES ARE ON PAGE 5231

WINTER SPORTS IN CANADA

VOLTAIRE when once asked if he knew anything of Canada, answered, " Canada? Yes, a few arpents of snow." This idea prevailed in Europe for years. No country, with the exception of Siberia, was so long misrepresented. Only a few years ago Rudyard Kipling called her, " Our Lady of the Snows."

Canada lies partly in the Arctic region, where ice, frost and snow rule supreme for seven or eight months in the year, but it is unfair to take this section of the country as an example of Canadian climate. In Ontario along the Great Lakes the climate is milder than that of New York City, while in certain parts of British Columbia it is milder still.

About the middle of November, the small streams commence to freeze over and there is an occasional flurry of snow, but the chances for enjoyment do not vanish with the coming of frost. On the contrary they are increased by the tingle of the icy wind and the crunch of the snow under foot. The cold sets every nerve tingling. Action is what one craves and action one will have. With this comes a thrill so intense that you care not for the needles of frost or the cutting north winds. Kipling brings this out when he answers for the small boy of Quebec.

" When asked, 'Are you friz?'
Replied, 'Yes I is,
But we don't call this cold in Quebec.' "

SKATING

By December the first, ice is strong enough for skating. This is the opening of the season, when Canadians become most enthusiastic. They are greatly devoted to out of door exercises and all kinds of field sports. Of these skating is the king of winter sports. Young and old rejoice when the ice will safely carry them, and it would be a novelty to find a Canadian boy or girl who does not know how to skate. Snow covers the ice, but every town has its covered rink. Masquerade skating parties afford no end of fun and amusement, while nothing delights the small boy so much as a game of shinny.

COASTING

At the first fall of snow fun increases. Boys and girls get out their sleds and the hills are black with a merry crowd of rosy-cheeked children. Coasting vies with skating in its popularity. During the evening, the grown people take the place of children, and the " bob " that of the sled, and the fun continues. Boys did not always have fine sleighs for coasting. In the days of George III, they coasted in sleds made of a small board with beef bones as runners.

SLEIGHING

Sleighing is a very enjoyable pastime of winter. The jingling of sleigh bells is constant music heard throughout the cold winter months. Young and old find much pleasure in driving and in sleighing parties.

SNOWSHOEING

By the middle of January, the snow is piled to the fence tops and roads are blocked. Then the snowshoer is in great glee. The shoe is made of thongs of rawhide fastened to a frame of tough, light wood. The shape of the netted part varies in different sections of the country, but the principle of construction is always the same. In wooded districts the wooden frames are frequently oval, but sometimes round. The most popular shape in Canada has narrowed and almost square toes turned up a few inches, and the oval ends in a long tail behind, looking not unlike a tennis racket. The shoe is about three feet long and thirteen to sixteen inches wide. The wearer uses moccasins and straps the foot in the centre of the oval. Snowshoes are a necessity in many places, a convenience in others, and a

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great aid to winter sport wherever snow is deep enough to use them. Snowshoeing is one of the most fascinating sports, and many towns have their snowshoe clubs. Its members enjoy many a tramp over thickly covered fields, or hold races. The snowshoe was invented by the Indians.

TOBOGGANING

Another popular sport that the Indians have given to the Canadians is tobogganing. When the first settlers came to Canada they were amused to see little Indian children sliding down hills on flat pieces of wood strapped together and turned over in front. The present toboggan is modelled after the old Indian type. It consists of several narrow pieces of well-seasoned ash bound together and strengthened by several narrow cross pieces. The front is curled like a scroll. Along each side is a rail to which the riders may cling. A toboggan is about six feet long and eighteen inches wide. In order to add excitement long chutes are built for slides. Some are frequently sixty or more feet high, with an incline of forty degrees, and so constructed that there may be a long stretch of open country at the base. The slide and a considerable distance from the base are covered with ice. The coasters pass like a comet leaving behind a tail of snow. A speed of seventy miles per hour is frequently attained. Shooting the slide has a fascination that one cannot resist and is an experience that one never forgets. A Chinaman once expressed his opinion thus, "Allee one whizz-whizz, and an hour's walkee allee up hill."

SKIING

In many parts of Canada a favourite sport is the Norwegian pastime of skiing. The ski consists of a thin piece of ash as long as the wearer can reach upward, and from three to five inches wide. The front is pointed and bent upward to prevent it from cutting into the snow. The foot is firmly fastened to the middle of the ski, and a short pole is used as a balance. In Norway children learn to ski almost as soon as they can walk. Ski jumping is very exciting sport. A long smooth hill is chosen for a course. About one third the distance down, an elevation of about six feet called the hop is built and covered with snow. The jumper starts and when the hop is reached straightens up and sails through the air, touching the hill again several feet from the top. The skill consists in continuing the run down the hill standing. There are many tournaments for distance and for jumping.

ICE YACHTING

Ice yachting is popular in all parts of Canada. Along rivers, lakes and bays you will see fleets of boats. Regattas are held in many places during the winter and valuable prizes are given to the winners. A good boat will skim over the ice at the rate of sixty miles an hour.

ICE GAMES

Canada boasts of two ice games, hockey and curling. Hockey is the great national game and was borrowed from the Indians. In the handling of the hockey stick and in chasing the puck, Canadians have not found their equals. Curling is a game borrowed from Scotland. It is a favourite pastime from the Atlantic to the Pacific. Every town has its hockey and curling rinks.

CARNIVAL

The Indians were noted for their winter festivals. These took place every year at some centre along the St. Lawrence and all kinds of sports were held. The Canadian Carnival is simply the Indian custom perfected by his paleface successor. It is a week of winter sport and amusement. An important feature is sometimes an ice-palace. The festivities are usually brought to a close by a storming of the palace.

There is not another country with such a variety of winter amusements as Canada affords. Every one looks forward to the coming of frost and cold with keen anticipation. People do not complain of the cold because upon it depend all kinds of winter amusement. With skating, coasting, tobogganing, snowshoeing, skiing, ice yachting, hockey and curling, where else can you find a greater array of exciting sports? Is it any wonder that Canada of all countries in the world is most enjoyable in winter?

WHAT THIS STORY TELLS US

IN this story we are told of one of the most wonderful exploits of modern times. For many, many years people have thought of making their way through the snow and ice to the North Pole. Dozens have tried and failed, but at last an American naval officer, after twenty-three years of effort, has succeeded in reaching the point where every direction is South. Here we are told how Commander Peary and his companions prepared for the journey, and how success finally came, April 6, 1909. They found no land around the Pole, but the point is in a great sea of ice.

HOW PEARY FOUND THE POLE

IN another part of our book you have been told of the many attempts to reach the North Pole, and how men have suffered and even died and still have not succeeded. But, as in so many other things, it seems that perseverance will finally win. As men have learned more and more of the frozen regions, expeditions have pushed a little farther into the land of ice and snow. Englishmen, Americans, Norwegians, Italians, all have tried. It was certain that some day the great mystery must be solved, but still everyone was surprised when on September 6, 1909, it was announced that Commander Robert E. Peary of the United States Navy, had finally reached the coveted point where every direction was South, on April 6th, 1909.

TWENTY-THREE YEARS OF ARCTIC EXPLORATION

For twenty-three years Commander Peary had thought of little else. He says in his book that in 1885, when a young officer in the navy, he read a description of Greenland, which so roused his curiosity and excited his imagination that he himself determined to see this land for himself. The next summer he made a trip alone and studied the thick sheet of ice which lies over nearly all of the country, so curiously named Greenland. Afterward he made other expeditions into the same country and discovered many facts of interest about that island. In fact, he discovered it to be an island in 1892, for up to that time it was not known whether or not it was attached to the mainland. The next year he went again, and Mrs. Peary went with him, and in that desolate region a little daughter was born.

COMMANDER PEARY DETERMINES TO SEEK THE POLE

Finally he reached the determination to try to do what so many had failed to do, that is, to reach the North Pole. The first trial in 1898 was unsuccessful of course, but he made other expeditions and still others, until at last he was successful. But the attempts were not wasted, for each expedition taught its lesson and showed what mistakes must be avoided if success was finally to come. Every voyage he learned more about the ice, the Eskimos, what the dogs could do, what provisions must be carried, and why others had failed.

A SHIP WHICH COULD FORCE A WAY THROUGH ICE

A number of men interested in the far North formed a society known as the Peary Arctic Club and provided money for the brave explorer. It had been found that ordinary ships were too light for the work, for in the terrible North the great floating fields of ice sometimes come together and crush a ship like an eggshell. So the club had a ship built especially for the work. It had very powerful engines and its frame was braced at every point to resist the crushing force of the ice. Then too it was sharp in front in order to cut through the ice. This ship was called the "Roosevelt" in honour of the former President and was used first by Commander Peary in the expedition of 1905 and 1906. Though this expedi-

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tion was not successful it went further into the North than any had gone before. In fact, it came within less than 200 miles of the pole.

In 1907–8 the ship was entirely refitted. New engines were provided and other changes were made. On July 6, 1908, the expedition, which was finally to be successful, left New York. It consisted of Commander Peary himself, Ross G. Marvin, his secretary, the surgeon, Dr. G. W. Goodsell, Mr. Donald B. MacMillan, and a young Yale graduate, George Borup; nor must Commander Peary's faithful coloured attendant, Matt Henson, who had been with him for years, be forgotten. Then there was the crew of the Roosevelt, commanded by Captain Robert A. Bartlett, a brave Newfoundland sailor. The Roosevelt sailed up the Greenland coast and stopped at Etah, which is the most northern point at which people live all the year round. From here the ship carried twenty-two Eskimo men, seventeen women, ten children and two hundred and twenty-six dogs. On the fifth of December, 1908, the boat reached Cape Sheridan, though it had several times been almost caught in the ice. By this time the ice was closing in so fast that it was found impossible to steam further north. The ship was placed in a convenient place and soon was frozen fast in the ice.

PREPARING TO TRY FOR THE POLE

The men spent the time hunting, taking observations and photographs and preparing for the trip. Some lived upon the ship while others built little huts of the boxes containing the food and other supplies. The camp was afterward moved to Cape Columbia. The sledges were made and tested to see that they were equally strong in all parts. The best dogs were chosen and the Eskimos, who seemed strongest and most trustworthy, were selected from the larger number. In all, there were the seven men, whose names have already been mentioned, seventeen Eskimos, nineteen sledges and one hundred and thirty-three dogs. Some of these Eskimos had been with Commander Peary on some of his previous expeditions, and knew his ways and were ready to help him. The sledges carried food and the instruments to determine how far they had gone.

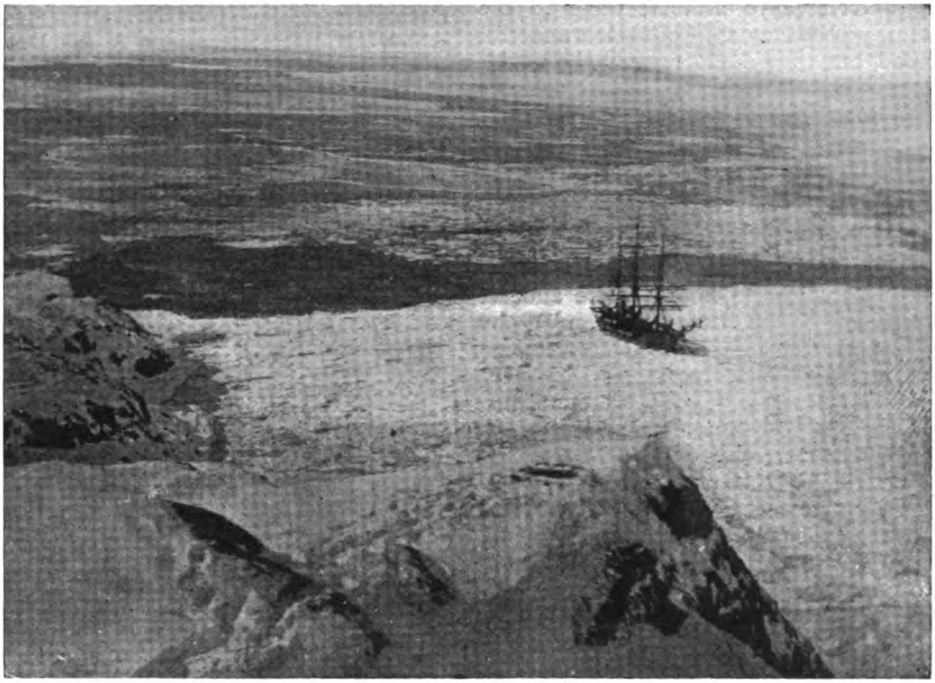
THE IMPORTANCE OF FOOD IN THE ARCTIC REGION

It is easy enough to get clothes which will keep one warm while in the cold regions, but where every particle of food must be carried along and to be without food is death, it is necessary to choose the best and the most easily packed food which is nourishing and at the same time takes up little room. It has been found that pemmican, which is dried beef ground to a powder and mixed with tallow, is the best food. Sugar is also good. The pemmican furnishes strength and sugar furnishes heat.

Commander Peary had formed his plan carefully. All of those men whose names have been mentioned and the Eskimos started out together with loaded sledges February 28, 1909. After they had gone a certain distance a small party would unload all the food it carried beyond what was necessary to take it back to the ship on the sledges of those who were going forward. The supporting party would then turn back. Later another party would also turn back, leaving any unnecessary food with those who were to go on. The plan worked well, for when the last supporting party turned back it was found that the party which went on to the Pole had twice as much food as was necessary to bring it back to the ship. The first supporting party turned back on March 14, 1909, and the next day Mr. MacMillan also turned back, for it was found that one of his feet was badly frostbitten and it was therefore impossible for him to go on, although Commander Peary had intended that he should be one of the very last to turn back.

A SAD ACCIDENT IN WHICH MR. MARVIN LOST HIS LIFE

About a week later Mr. Borup with some of the Eskimos also turned back, and Captain Bartlett led the advance. With sledges which were not very heavily loaded he went ahead and made a road through the snow which the others followed. Sometimes they had to chop a road through ice. When he and his party had gone as far as they could without resting they would stop, make snow huts, and sleep. When the others had come up with them they would harness their dogs and start on again. They could do this very well, for you must remember that in the far North the days and the nights are six months long, and at this time there was no difference in the twenty-four hours. The next party to turn back was under the charge of Mr. Marvin. When he had gotten almost in reach of the ship some thin ice which he was crossing gave way and the young man was drowned. Mr. Marvin was an instructor in Cornell University and was a man who made many friends. His sad death was the only one of the expedition.



The "Roosevelt" twice lay through the long Arctic winter fast in the ice, with no other ship near. Beyond you see the fields of floating ice, which could crush an ordinary ship as easily as you can smash a piece of fragile china. There is nothing but ice and water beyond.

The ice is not all alike in these regions. Some of it is a hundred feet thick, and during the summer breaks up into great fields, sometimes many miles in extent. The weather is so cold, however, that ice soon forms on the open water between two great ice fields, but this is not always strong enough to bear the weight of a man with loaded sledges. The ice is seldom smooth but is piled up like a hilly rocky New England pasture.

THE POLE IS FINALLY REACHED

Finally (150 miles from the Pole), Captain Bartlett turned back and Commander Peary, Henson and four Eskimos started on the desperate rush to the Pole. Good progress was made and finally, on April 6, 1909, the instruments seemed to show that the Pole had been reached. Several flags were hoisted and the party camped. Mr. Peary went several miles further on and then turned to the right to take observations, and to be sure that he had gone far enough. For about thirty hours he stayed around the camp taking photographs, making observations and the like.

They had reached the point. The question was, could they get away? For with the unsuccessful attempts in the past the trouble had been to get back to civilisation in safety. A broken sledge, an accident to the dogs, or any one of a dozen things might prevent them.

HOW THE PARTY GOT BACK FROM THE POLE

On the return journey, they threw away everything except what they would be sure to need, so that the dogs would have less to pull, and started back on the seventh of April. For most of the way they kept the trail which they had made while advancing, and some of the snow huts which had been built a month before were still standing.

Finally, sixteen days from the time they left the Pole, they reached land. Two days more brought them to the ship, where they told of their wonderful news, but they could not tell the world, because for more than two months longer the ship was held fast in the ice. The time was spent in exploring, hunting and seeking to find out more of the region in which they were.

A SAD REMINDER OF ANOTHER EXPEDITION

While hunting, Messrs. MacMillan and Borup found the house where another American expedition commanded by Lieutenant Greely had lived for two years after they left their ship, the Proteus. In this house were found, just as they had been left twenty-six years before, books, jewelry, notes and records which it had been supposed were lost forever. Finally, as the summer came on, the ice began to break up and on the eighteenth of July the Roosevelt started to plough her way through the floating ice.

THE REWARD TO THE BRAVE EXPLORER

The Eskimos were landed at Etah, with goods which made them millionaires among their tribe. The coast of Canada was finally reached in September, and soon the Roosevelt reached New York. Just before Commander Peary reached the Canadian coast Dr. F. A. Cook announced that he, too, had reached the North Pole a year earlier than Commander Peary had, and since that time had been living in the North with a few Eskimos trying to make his way back to civilisation. His story was accepted by many peop'e who claimed that Commander Peary was not entitled to the credit of being the first to reach the Pole. Commander Peary's claims have been recognised, however, by all the learned societies of America and Europe, but Dr. Cook's have not. The United States Congress gave Commander Peary a vote of thanks and promoted him to be Rear Admiral, and as he had been worn out while striving to carry the United States flag further North than it had ever been done before, placed him on the retired list.

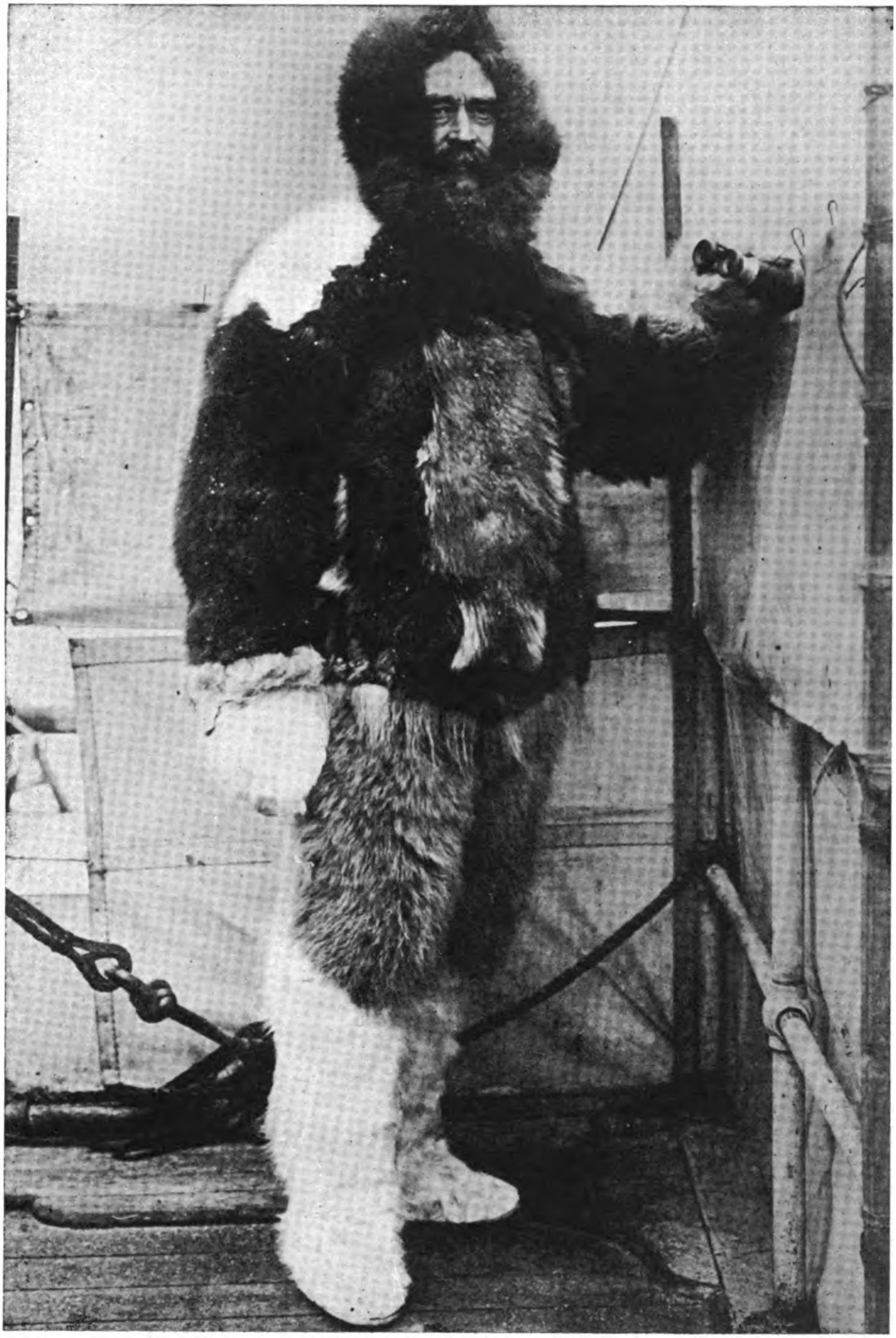
WHAT WILL ADMIRAL PEARY DO NEXT

Many people have tried to get Admiral Peary, as we must now call him, to go on an expedition to the South Pole, which Lieutenant Shackleton, the English explorer, came so near reaching, as you may learn in another place in our book. Admiral Peary says that he has had enough of such work, but many believe that in a year or two, when he is thoroughly rested, he will surely wish to try to conquer the difficulties of the South as he has done those of the North. There is a fascination about the life in the frozen lands which holds men fast. On, on, they go, seeing sometimes a musk-ox, a polar bear, perhaps a few birds. As they go farther there is no life upon the ice in the water, or in the air, except the men and the dogs. The cold is intense, the glare of the sun upon the ice blinds the eyes, and there is danger everywhere. If the dogs should become sick, or if a sledge should break there would be little hope. If one should slip on the ice and injure himself the remainder of the party must stop to wait for him to get well, and every day the supply of food grows smaller. Perhaps the ice gives way and the icy water stiffens the limbs as the unfortunate man struggles to climb upon the ice again.

OF WHAT USE IS THE DISCOVERY OF THE POLE

It is difficult to tell in simple words the advantages the scientist says will come from this exploit. He says that it will be of value in all geological calculation, but he does not make himself clear. One great use of all the expeditions has been to show us how a man can risk his life for an idea. It shows us that bravery still exists in the world, and that man can conquer if he will.

THE FINDER OF THE POLE



Here is Commander, now Admiral, Peary, on the deck of the "Roosevelt." In a region where the temperature falls many degrees below zero, it is wise to dress in furs, which keep in the heat of the body better than any other clothing. It is a clumsy dress, however, and one has difficulty in using his hands.

GREAT POETS IN THE HALLS OF PRINCES

Here we see Virgil, the great Latin poet, who wrote the "Æneid" to glorify the Emperor Augustus, crowned with the laureate's wreath and seated in the house of Mæcenas, the wealthy minister of Augustus, while Virgil's friend and fellow-poet, Horace, recites one of his own beautiful poems to that great patron of the arts.

To show his respect for Molière, the great French dramatist, who flourished in the age of Louis XIV., the king invited Molière to dine with him, while all his titled courtiers stood around, and thus did homage to the actor-dramatist, whose fame endures when the artificial honours of these French nobles have all been forgotten.

WRITERS OF OTHER LANDS

CONTINUED FROM 4956

THE foremost poet of antiquity was Homer. It is something like three thousand years since he flourished in Greece. The story of his two great poems, the "Iliad" and the "Odyssey," is told on page 67. For ages scholars have learned the language of ancient Greece, so that they might read in the original tongue those books and other compositions of the Greek writers who lived before the time of Christ.

Ancient Greece may be described as the mother of the civilised world; her writers were the pioneers of everything that is beautiful in thought, imagination, and expression. Homer's poems are in large measure descriptive of the legends that were born from the lively imagination of an ancient people, tales of fabulous adventure and the war-like deeds of men and gods; for to the Greeks there were many gods, and actual men who had once lived were often believed to have become gods after they had disappeared from earth.

Homer himself is something of a legend, for we know almost nothing about him. Seven different towns of Greece contended in ancient times for the honour of being his birthplace. Tradition says that he went about in public places reciting the poems he composed; that when he died and was buried he was worshipped as a hero. The Greeks named one of the months of their calendar after him, and for ages his poetry was an inspiration to them. He sang in praise of heroism, and invested manly courage with the beauty of golden words. His was the voice of an heroic age, and we cannot read his poetry to-day, even translated into our own tongue, without feeling that we are reading the work of one of the world's great men.

The next great writer of Greece, who has been called the "Father of History," lived nearly five hundred years after Homer, and was born about 490 years before Christ. His name was Herodotus, and he was a native of a famous town in Asia Minor, called Halicarnassus, which was a Greek colony. Perhaps it was due to the fact that he was expelled from his native town by a tyrannical ruler that he became a great traveller.

He wandered into many countries, eastward as far as Persia, visiting Egypt and the colonies which the Greeks had founded on the north coast of Africa. Everywhere he went he was interested in the people he met and the things he saw, and he wrote down accounts of the different peoples and their countries based upon his own observations and on what he was told. In this way he compiled the histories of many ancient wars, and descriptions of towns and nations that had disappeared long ages ago, and of which we might have known nothing but for his travels and investigations. He wrote these histories in a pleasant, unaffected, familiar style, which makes them alive with human interest; and though it has often been doubted whether his stories were to be believed, many of his most extraordinary statements have since been found to have at least some element of truth.

It is thought that Herodotus died about 410 years before Christ, perhaps in Southern Italy, where he had gone some time previously to take part in the founding of a new Greek colony.

Rome had become master of the world, when Publius Vergilius Maro, whom we know as Virgil, was born near the Italian town of Mantua, on October 15 of the year 70 before Christ. The Romans were now the all-conquering people, the warrior race of the world, but their culture and learning they had taken almost entirely from Greece.

VIRGIL, THE AUTHOR OF THE "ÆNEID," THE FIRST OF THE GREAT LATIN POETS

Virgil went up to Rome as a young man to study, but as his health was weak, and he lacked the confidence necessary for a speaker, he gave up thoughts of public service, and, returning to his country home, devoted himself to the study of the Greek poets. He achieved great fame by a series of pastoral poems modelled on the Greek poet Theocritus, and was befriended by the celebrated Mæcenas, the rich patron of all the poets of his day. Seven years of his life he devoted to his next great work—a series of four poetic books entitled "Georgics," which may be rendered in English as "The Art of Husbandry," dealing with all aspects of country life. These appeared in the year 30 before Christ, and established his fame as the greatest poet of his age.

The remaining years of his life were devoted to the writing of the great Latin epic poem known as the "Æneid," which he undertook at the suggestion of the Emperor Augustus, in order to glorify the legendary founder of the Roman nation, and the royal house from which the emperor was descended. Æneas was one of the mythical heroes of Greek legend, a Trojan prince who escaped from Troy, as told in Homer's "Iliad," and it was Virgil's task to show how he had been the founder of the Latin nation. The story of the "Æneid" is told on page 70. Virgil died on September 21, 19 years before Christ, at Brindisi, in Italy.

VIRGIL'S FRIEND HORACE, ANOTHER GREAT POET OF ANCIENT ROME

One other poet of the ancient world must be mentioned. This was Quintus Horatius Flaccus, whom we know as Horace. He was born in Italy on December 8, 65 years before Christ, and died in Rome on November 27 of the year 8 before Christ. The father of Horace was a freedman, who had been able to send his son to Rome and afterwards to Athens for education.

It was at Athens that Horace was fired with thoughts of liberty, when he listened to a speech delivered by the famous Brutus, and he fought at the battle of Philippi, when the murderers of Cæsar were defeated by Antony and Octavian. He fled from the fatal field, and was afterwards glad to accept the patronage of those he had fought against, for in his poverty he turned to the writing of poetry, and Virgil, admiring his work, brought him to the notice of Mæcenas, whose brimming purse was at the service of the poet, and made him comfortable for the rest of his days. He received from this wealthy minister of Augustus a farm on the lovely Sabine Hills, not far from Rome, and in his poems he often sang of the delights of his pleasant life there.

DANTE, THE GREAT ITALIAN, AND HIS WONDERFUL POEMS

As Rome began to decline and, at the beginning of the fifth century of the Christian era, ceased to count as the greatest power in the world, the arts of literature and learning, which had been cultivated in her great days and carried on from the older times of Greece, almost went out, and ages passed before they revived. It was in the same fair land of Italy that the revival took place. What is known as the "Italian Renaissance," or re-birth, was heralded by the great poet Dante Alighieri, who was born at Florence in May, 1265.

Dante took a prominent part in the life of his native town, but in January, 1302, he was banished for his political opinions, and later was condemned to be burned alive if he could be captured. He thus became a wanderer from his native town, and had to find refuge in other friendly cities, settling at Ravenna, where he died on September 14, 1321.

THE EXILE OF DANTE AND THE EARLY DAYS OF PETRARCH

When his great poem, "The Divine Comedy," was written, we do not know for certain. Of his ways of life we know but little, but what we do know is that this wonderful poem is one of the world's grandest treasures, and displays the marvellous learning of the poet in the most varied branches of knowledge, expressed in language of majestic beauty. It is also notable for the vision it gives us of a strangely idealised love, as the inspiring force of his poem was the undying affection he conceived for a lovely Florentine lady, Beatrice Portinari, whom he saw when he was a boy, but who died in early womanhood without knowing what a pure flame of devotion she had awakened in the heart of the strange, sad Dante. He had been married for twelve years and had a family of seven children when he was banished from Florence. He never saw his wife again.

At the time that Dante had been exiled from his native town, a fellow-citizen, named Petrarca, was also banished, and two years later a son was born to him in his exile. Francesco was the name given to the boy, who was born at Arezzo on July 20, 1304. When he was eight years of age, he accompanied his father to the court of the Pope at Avignon, in France, for at that time the seat of the Papacy had been removed from Rome to Avignon. Later he went to Bologna, in Italy, to study classic learning at its university.

WHY PETRARCH WAS GIVEN A PALACE IN THE LOVELY CITY OF VENICE

Petrarch, as we call him, was twenty-two when his father died. He then returned to Avignon. He seems to have studied for religious service, although he never became a priest; but his mind was of a very religious cast, and much of his time he devoted to travelling among the churches and monasteries and seats of learning, searching for old manuscripts and also writing poetry.

Petrarch was, indeed, the second great figure of the Italian Renaissance, a man of genius whose gifts were recognised widely, and who was honoured by all the scholars then keenly alive to welcome any thinker of worth who arose in that day of renewed literary activity. His poems are among the most beautiful gifts that have come to us from the Middle Ages. Like his great forerunner, Dante, Petrarch had also a love romance, and a lady named Laura was to him what Beatrice had been to the writer of "The Divine Comedy."

As the greatest scholar and poet of his time, he was sought after by kings and princes. So proud was the Republic of Venice to have as a citizen one so distinguished that he was presented at the public expense with a beautiful palace in that city of palaces, and there he lived in state for years, all that he was asked to do in return being to leave his library to the Republic of Venice when he died. He died near Padua, on July 18, 1374.

GIOVANNI BOCCACCIO, THE GREAT STORY-WRITER OF THE MIDDLE AGES

The third great figure of the Italian Renaissance was a person very different in character from Dante and Petrarch. Giovanni Boccaccio was born, possibly at Florence, in the year 1313, the son of an Italian merchant. He studied for the law, and was a student at Paris for a time; but when residing in Naples he began to write stories both in verse and prose, and enjoyed the luxury-loving life of that town as well as the pleasures of Florence, where many of the great people lived like princes. His stories were amusing, fresh, and unlike any others that had been written before. They were full of warm, human feeling, bright with humour, and ingenious in their ideas. They were too free in their manners, but in this he only reflected the manners of his age.

With Boccaccio the whole modern art of story-telling may be said to have taken its rise, and he is better remembered and admired for his prose tales than for his poetry. He died on December 21, 1375, at the town of Certaldo, where his father had been a merchant.

We pass over nearly two centuries now, and look to Spain for the next great figure with whom we are concerned. Miguel de Cervantes Saavedra was the high-sounding name of the Spanish writer whom we know simply as Cervantes. He was born in 1547, and died on April 23, 1616. He was only twenty-two when he wrote some pieces on the death of the queen of his land, and in the same year he went to Italy in the service of a cardinal, but soon enlisted as a soldier.

THE ADVENTURES OF CERVANTES, THE SPANIARD WHO WROTE "DON QUIXOTE"

Cervantes took part in the famous battle of Lepanto, where his left arm received injuries that rendered it useless for the rest of his life. But, despite this, he saw more fighting, was engaged against the Turks in Tunis, suffered five years of slavery under the Algerian pirates, and had man other adventures before he was done with soldiering.

Cervantes was nearly forty years of age when he married, and sought to support himself by writing for the stage, as he had already shown his literary power in a pastoral romance entitled "Galatea." His plays must have been fairly successful, for he wrote between twenty and thirty, of which only two are now preserved. In 1594 he was appointed collector of revenues for the kingdom of Granada, but three years later was imprisoned, owing to a shortage in his accounts. It is said, but it may be only a tradition, that it was while in prison he wrote the first part of the book by which his name became immortal, "Don Quixote," the story of which begins on page 899.

It is to the writers of the fair land of France we now must turn, and the first there to engage our attention was living at the same time as Cervantes.

MONTAIGNE THE FRENCHMAN, WHO IS FAMOUS FOR HIS ESSAYS

Michel Eyquem de Montaigne was surely an extraordinary boy, for until the age of six he spoke nothing but Latin, and every morning he was roused in bed to the strains of soft music! He was born on March 28, 1533, at his father's castle in Perigord, and when only six was sent to Bordeaux, where he remained for seven years, receiving the best education his time could offer. One of his tutors was a celebrated Scotsman, named George Buchanan, who was a professor at Bordeaux. The boy was studying for the law, but between the ages of thirteen and twenty-four we know almost nothing about him. Then he appears again in Bordeaux, in a public post, and fills the position of a city councillor there for thirteen years.

Montaigne married at thirty-four, and after his two elder brothers had died he succeeded to his father's estates, spending the remainder of his life as a country gentleman of leisure, travelling often to foreign lands for his pleasure and instruction. It was in this leisured life that he began the writing of the essays for which he is famous, and there is, indeed, no pleasanter reading in all French literature than the charming little papers which he wrote as the mood came upon him, discussing all sorts of subjects and expressing his opinions in the most agreeable and elegant style of language. On September 13, 1592, he died at his castle in Perigord.

MOLIÈRE THE ACTOR, WHO WAS THE GREATEST OF ALL FRENCH DRAMATISTS

We have passed another century, and are in the Paris of Louis XIV., "the Grand Monarch," as he was called, when we make the acquaintance of the next great writer of France, Jean Baptiste Poquelin, known under his stage name of Molière. What Shakespeare is to England, Molière is to France. Unsurpassed as a writer of comedy even by Shakespeare himself, Molière is still the lesser dramatist, because he could not sound such depths of passion as Shakespeare does in "King Lear."

Molière was born in Paris on January 15, 1622, the son of a well-to-do furniture-dealer, and studied for the law, but early in life embarked on a theatrical venture, which, though it failed, made him an actor for the remainder of his days. He performed with his company in the provincial towns, and later was fortunate in receiving the patronage of the powerful Prince de Conti. The king himself was charmed with the gifted actor-dramatist, and delighted to honour him.

Molière thus became famous for the delightful comedies he wrote for his company of players, in which he himself usually played a part. It was after performing in one of his finest comedies, "The Imaginary Invalid," that he was taken ill and died at his house in Paris on February 17, 1673.

Françoise Marie Arouet was the real name of another great Frenchman who could write plays and novels and poems and histories equally well. He called himself Voltaire, and probably no writer in any age ever exercised a greater influence on the mind of his generation. He was born at Paris on November 21, 1694, and, like Molière and so many others, first studied for the Bar.

VOLTAIRE, THE GREAT PHILOSOPHER OF FRANCE IN THE EIGHTEENTH CENTURY

Of an intensely cynical and satirical turn of mind, Voltaire's earliest writings were in the form of lampoons, or attacks on public men, for which he suffered imprisonment in the Bastille, but afterwards he made his way at court, and by sheer force of his powerful personality made the whóle of Europe listen to what he had to say.

Portraits and statues of Voltaire are very familiar in Paris to-day, and his little, sharp-featured, shrivelled face, in which there is always the suggestion of a cynical smile, is a good index to the writings of the man. He was quite lacking in reverence, but marvellously clear-sighted, when he sought to expose to men the folly of many of their accepted ideas.

Some of his histories and his plays show extraordinary knowledge, and he has always the power to make us think, even if we do not think with him. He was eighty-four when he died at Paris on May 30, 1778.

ROUSSEAU, THE FRENCH PHILOSOPHER, WHO WAS A WATCHMAKER'S SON

A great contemporary of Voltaire, and a curiously perplexing character, was Jean Jacques Rousseau, who was born at Geneva on June 28, 1712. He came of a French Protestant family, but led a very stormy youth, and turned Roman Catholic. There is nothing very creditable in his early life, and many of his adventures were of a dismal and unprofitable character. In 1753 he wrote an opera, and soon made friends among the rich and leisured of that age, against whom the terrible fury which later burst forth in the French Revolution was slowly gathering.

He wrote a novel, called "Emile," that made him famous, but is no longer read, as the ideas expressed in it were peculiar to his time. His writings did not a little, however, to help forward the cause of liberty, which was finally to triumph in so terrible a fashion not many years after he was dead. In England he stayed for some time as the guest of the great historian David Hume, but, of a quarrelsome and unsettled disposition, he could not keep friends, and his end at a place near Paris, on July 2, 1778, left a suspicion that he died by his own hand.

None of the writers we have been considering had written anything in the same class as the great romances which are the chief treasures of modern literature, and which it was left to Sir Walter Scott to raise to the height of perfection. But there was born at Besançon on February 26, 1802, the son of a French general named Hugo, who, following the footsteps of the great Sir Walter, enriched the literature of France with some works which will never die.

HUGO AND DUMAS, THE MASTER WRITERS OF FRENCH ROMANCE

Victor Marie Hugo, as he was called, was educated at Paris and Madrid, and when only a boy of fourteen he produced a tragedy. Poetry and romance were the passion of his life, and he enjoyed the highest honours which the favour of the public can confer upon those who entertain them with the magic of story-telling and great poetry. Such thrilling romances as "Les Misérables," "Nôtre Dame," and also "Toilers of the Sea," the story of which begins on page 4171, fascinated the public of his day, and will be read so long as romance has power to enthral us. He also wrote many great plays and poems, and was eminent in the public life of his time, being banished some years for his political opinions, during which time he lived in the island of Guernsey. But it was at Paris he died, on May 22, 1885. This great son of France was laid to rest in the Pantheon at Paris, where his tomb is visited by people from all parts of the earth.

Living at the same time as Victor Hugo was another writer, whose life was as romantic a story as any he ever wrote. Alexandre Dumas, the renowned author of "Monte Cristo," was the son of a republican general, and his grandmother had been a black woman, so that he was a quadroon. He was born in the north of France on July 24, 1803, and his early life was not particularly profitable, but, having a taste for writing, he spent some years in study, and then began the most amazing career of any writer in history. Stories of all kinds—romances, plays, books of travel—flowed from his pen in a stream that seemed to be inexhaustible. Never had any one man showed such fertility of imagination, such ingenuity of invention, such boundless energy.

The fact was that Dumas was not only a genius, in whose mind revolved endless ideas for tales and romances, but he had the power to touch with his own individuality the work of others, and scores of lesser writers worked with him from time to time as his assistants.

Dumas was as kind-hearted and as prodigal as he was unscrupulous, and he had no sooner made a fortune than he contrived to get rid of it, so that when he left Paris for the last time, in 1870, and went to his son's villa near Dieppe, he was practically penniless. He died on December 5, 1870. His son wrote many novels and plays, and, taking a warning from his father, was very careful with his fortune.

GOETHE, THE MOST FAMOUS POET AND PHILOSOPHER OF GERMANY

From France we pass now to Germany, where, as culture had blossomed later than in the more western part of Europe, we do not find great writers until a later day. The first of world-wide fame is named Johann Wolfgang Goethe, and he was born on August 28, 1749, at Frankfort-on-Main. He, too, in common with so many literary men of all lands, was trained for the law at the University of Leipzig, but had no taste for that profession, and later studied science and literature at Strassburg.

Poetry and the romance of legend attracted his mind most, and by degrees he came to shape his thoughts into poetic form, having attempted the writing of plays and songs before he was twenty years of age. It was through the study of other poets and the old ballads, such as Sir Walter Scott himself had rejoiced in, that Goethe was first led to writing about them as a critic, and later to producing great poems himself. The work by which his name is best known to American readers is "Faust," a great poetic drama which has been translated into most languages of the civilised world, and has thrilled the hearts and thoughts of generations. His life was filled with the most fruitful activities, his friendships with the great men of his day are memorable, and the influence of his thought on the mind of Germany has been far-reaching and permanent. It was in 1775 that he was invited by the Duke of Weimar to stay in that town, and there he remained all the rest of his life, dying on March 22, 1832. Weimar is famous to-day because of Goethe, and because of the fact that the body of this great poet rests in the ducal vault beside that of Schiller, his friend and fellow-poet.

SCHILLER, THE GREAT DRAMATIC POET, WHO WROTE THE PLAY "WILLIAM TELL"

Johann Christoph Friedrich Schiller was the son of an army surgeon, and was born in Würtemberg on November 10, 1759. He, too, became a surgeon to a Würtemberg regiment, but early began the writing of plays, and had one produced in 1782. The Duke of Würtemberg acted very tyrannically towards him, and prohibited him from writing other plays, as those petty dukes of Germany were able to do at that time. So Schiller fled from the duchy and wrote his plays elsewhere, and finally found himself at Weimar. His works have earned for him the position of the foremost dramatic poet of Germany, and perhaps his play that is best known to American readers is "William Tell."

Numerous versions of his poetry are to be found in English, just as with Goethe, and lives of him have been written by many authors, the most famous being that by Thomas Carlyle. His life was a long struggle against poverty, and he died at Weimar on May 9, 1805.

HEINE, THE GERMAN POET, WHO BORE HIS TRIALS WITH QUIET HEROISM

There remains but one more great name that need engage us, and it, too, has added to the lustre of German literature. Heinrich Heine was born of Jewish parents at Düsseldorf on December 13, 1799, and early in life turned to the writing of prose and poetry. His poems are touched with rare beauty, both of form and feeling, and he undoubtedly did much to ennoble and spiritualise the mind of the German people. His late years were passed on a bed of suffering, and nothing that he wrote distinguished him more than did the patience with which he bore his years of pain before death released him on February 17, 1856.

CONTINUED ON PAGE 5317.

THE FLIGHT IN THE MOONLIGHT

CONTINUED FROM 5171

There lived in Normandy nearly a thousand years ago a little boy named Richard, grandson of the famous Rollo, who came with the vikings of the North to conquer the fair land about the River Seine. Little Richard had a lonely childhood. His stepmother disliked him, and he rarely saw his father, William Longsword. But when the boy was eight years of age his father became very ill, and thinking he was about to die, he took Richard to Bayeux and made the barons swear loyalty to the little heir.

Soon after, the father was treacherously murdered, and for little Richard there began a long series of troubled days. King Louis of France was his enemy, and thought he could easily deprive so small a boy of his dukedom.

But there were loyal barons and chieftains who loved and stood by the little Richard; and when the boy was taken prisoner, they rescued him. But not long did he remain free, for Louis, under some pretence of kindness, again got possession of the boy, who was then eleven years old, and shut him up in a tower at Laon in charge of Osmond, a Norman noble.

Now, Osmond was clever, and he taught Richard all he knew during the lonely hours that they spent in the tower. Moreover, he loved his little charge, and it pained him to see the boy growing pale and feeble for want of fresh air and exercise. Once, indeed, he dared King Louis' anger, and secretly took Richard out for a gallop across the country. The good this did the boy made Osmond quite determined that he would find a way to escape with the boy, to whom he was now much attached.

It was a wet season, and the damp and confinement in the tower made Richard really ill, so ill that the king and all those about the court thought the boy's days were numbered. Osmond wished them to think Richard was really worse than he was, for he had made a plan of escape, and was just waiting a favourable opportunity for carrying it out.

Before long the opportunity came. A great banquet was to be given in the castle, and preparations, watched by the boy prisoner from his window in the tower, went merrily forward. According to Osmond's instructions, when the officer paid his usual visit of inspection, Richard remained lying on his bed, able to answer questions apparently in only a feeble voice. When the officer had gone, Osmond told his little friend that he meant to escape with him that very night, but when Richard eagerly asked " How ? " he would not tell him, but only said :

" Eat up all your food ; you will want all the strength you can get."

The day wore on, and as the hour of the banquet came, and the guests had entered through the gateway, the courtyard and the entrance and passages inside seemed quite deserted. Osmond opened the door of the room, looked down the winding stairway, and listened. Then, beckoning to Richard to follow him, they stole down the steps and across the courtyard, keeping in the shadows as much as possible.

Fortunately, Osmond knew his way to the barn even in complete darkness, and with the boy close at his heels he entered it, tore down a large truss of hay, snatched up a cord and bound the hay round the boy's body, so that no one would have dreamed there was a small boy in the middle of it. Then very carefully he set the bundle against a wall and hoisted it on to his back.

" Be quiet. Don't make a sound," he whispered into the bundle.

Now came the dangerous part of the venture, for Osmond had to cross the courtyard in the moonlight to reach the stables.

When he arrived at the stables, he put his bundle down, saddled a horse, set little Richard free from the hay, and led the horse out through a side door. Then, keeping the boy up in front of him, he wrapped a big cloak round the two of them, and rode quietly through the streets of the town, and when the houses were left behind, galloped away with his precious charge, as we see in the picture on page 5223. Little Richard lived to rule his dukedom and win the love and approval of the subjects whom he governed.

THE WOMAN WHO SOLD HER SHAWL

One day some poor children from the London slums were being sent for a fortnight into the country, in connection with the Children's Holiday Fund. It was a touching sight. The chatter of little tongues, the patter of eager feet, the scramble into the carriages, the packing of bundles and baskets on the racks, elder sisters making babies comfortable in the corners, younger brothers clamouring to sit by the window, and all, great and small alike, telling in excited tones what they would do and where they would go.

Walking up and down on the platform, or gathered in knots about the doors, were the mothers — poor working women, who had snatched an hour from the factory or the wash-tub to see their dear ones off. Each child apparently had its parcel of food for the journey, and a copper or two to spend on arrival.

But there was one child there who had neither—a little girl. She sat on the edge of the carriage seat, her wistful eyes wide open, but neither a smile on her face nor a word of gladness on her lips.

Her forlorn appearance attracted the attention of one of the women outside, whose own child was near by, merry as bird, one hand full of pennies, the other grasping a bag containing buns. The sad white face of the little girl smote this good woman to the heart. Where was the poor child's mother, she asked, and had she no brothers or sisters, no pocket-money, no food ? The child shook her head. Father was dead, mother could not leave her work, she had no brothers and sisters, and as for pocket-money and food, she simply spread out her empty hands. A companion had brought her to the station.

By this time several other people had gathered round, and many were the expressions of pity and concern. But the woman, whose shabby skirt and shawl proclaimed her extreme poverty, dashed a tear from her eye, and, saying " Wait a minute," hurried away.

Everyone had forgotten her, the guard was about to blow his whistle, and the train would soon be moving, when she returned, rushing along the platform, without her shawl, in search of the lonely child. In her hands were some pennies and a big bun.

" Hurry up, please ! " cried the guard, holding open the carriage door ; and the woman was just in time to place her gifts in the child's hands before the door shut with a bang and the train steamed away. She had sold the shawl from her ill-clad shoulders, so that the little girl might be happy like the others.

THE NEXT GOLDEN DEEDS ARE ON PAGE 5386

A ROMANCE OF LONG AGO

THE last famous book whose story has been chosen for telling here is a work of fiction dealing with the time of Jesus, written by an eminent American soldier-author. Probably no tale of Bible times has enjoyed greater popularity than this graphic and thrilling romance of an imaginary young Jew who became a convert through the teachings of Jesus. General Lew Wallace, the author, was already known in our country as a soldier and statesman, as well as a story-writer, when, in 1880, he published "Ben Hur," but the fame that book brought to him entirely eclipsed all his earlier achievements. He was fifty-three years of age when the story appeared, and few men so late in life have earned such world-wide popularity. With the exception of "Uncle Tom's Cabin," probably no novel written in recent times has been more widely read, and both are the works of American authors. General Wallace died in 1905.

BEN HUR

A TALE OF THE TIME OF JESUS

CONTINUED FROM 5146

THE great city of Jerusalem and all the land of Judæa were under the heel of Rome. A Roman official, known as the procurator, administered the government on behalf of the imperial power, and, supported by the stout blades of the Roman legionaries, kept the people of Jerusalem in subjection.

Such was the state of affairs when, some three years before the birth of Christ, a son, named Judah, was born to Ithamar, of the house of Hur, a prince of Jerusalem, and the richest man of his time. Judah Ben Hur, though of the Jewish race, was the playmate of Messala, the son of one of the high Roman officials at Jerusalem.

The friendship between the Jewish boy and the young pagan, who was two years his senior, seemed likely to endure, and Ben Hur did not cease to cherish the memory of his playmate during the five years that Messala was away in Rome for his education as a soldier. But when the Roman youth returned to Jerusalem, he was full of hatred to the Jewish people, having been taught in Rome to despise them as an inferior race.

Ben Hur realised, with sorrow, that the playmate and companion of his youth was likely to become the enemy of his manhood, for the young Jew was devoted to his own people. Ben Hur's father was now dead, but his mother consented to his becoming a soldier, on condition that he should never fight for Rome, but devote his arms to the service of Israel and the King of the Jews, whose coming had been foretold by the prophets of old, and whom the Jewish people expected to come as a mighty conqueror.

Messala had not been long back in Jerusalem when the new procurator arrived from Rome. His name was Gratus, and his entry into the city was made the occasion of a grand procession, for the Romans rejoiced in spectacular display, especially when that conveyed to a subjected people some notion of the overwhelming power of Rome.

High up on the flat roof of the house of Hur the young Jewish noble stood to watch the procession pass, and, leaning over the parapet, dislodged by accident one of the heavy tiles, which, falling into the road below just as Gratus was riding past, struck him from his horse, and in the confusion that followed both Jews and Romans were ready to believe that a deliberate attempt had been made on the Roman official.

Though Gratus suffered but slightly from this accident, Messala denounced Ben Hur as an assassin, and without the semblance of a trial the youth was condemned to the galleys, while the palace of his fathers was seized in the name of the emperor, and no one knew to what fate his mother and his young sister Tirzah had been sent. Under a heavy guard, and subjected to the cruellest treatment, the youth was conveyed to the sea-coast, and in the villages through which he passed there was none of his own people who would venture to brook the anger of the Roman guards by giving him food and drink, much though they pitied him. Only in passing through the little town of Nazareth did a youth, who accompanied an elderly man carrying the tools of a carpenter, come forward with quiet fearlessness to the Jewish prisoner, and, looking upon him with infinite pity, give him a drink of water before the astonished guards could interfere.

A PRINCE OF JERUSALEM AS A SLAVE IN THE GALLEYS OF ROME

A galley-slave was usually worn to death in a year or so, but Ben Hur had not abandoned the hope that he might yet live to fight for the Lord of Israel, and even in the awful depression of his new life, chained to a bench in the galley, and tugging wearily at a heavy oar, he clung to this hope. His shrewd mind told him that by changing from one side of the galley to the other he would better be able to stand the strain of the toil, and this change he contrived to effect, so that he developed the strength and muscles of a giant, and became the best oarsman in the galley.

Three years had passed in this way, and never a word of kindness had the galley-slave heard, until it chanced that the Astræa, as the galley on which he served was named, was made the chief vessel of a fleet of one hundred assembled under the great tribune Arrius, to do battle with the pirates in the Ionian Sea. The attention of Arrius had been directed to Ben Hur, who was said to be the best rower on the galley.

HOW THE GALLEY-SLAVE BECAME A RICH PRINCE AGAIN

"From thy speech thou art a Jew," said the noble tribune to him.

"My ancestors further back than the first Roman were Hebrews," was the proud answer.

"I have not been to Jerusalem," Arrius went on, "but I have heard of its princes. I knew one, a merchant who sailed the sea. He was fit to have been a king. Of what degree art thou?"

"My father was a prince of Jerusalem, and as a merchant he sailed the seas. He was known and honoured in the guest-chamber of the great Augustus. His name was Ithamar, of the house of Hur."

The tribune raised his hand in astonishment, saying, "A son of Hur—thou?" For it was to Ithamar he had alluded. The noble Roman then heard for the first time the true story of how Ben Hur had been condemned without a trial, and resolved to examine into his case. Meanwhile, the galley required the service of its best rower, and Ben Hur went back to his toil at bench number 60. In the battle with the pirates the Astræa was wrecked. Arrius would have drowned but for the help of Ben Hur, and out of gratitude for this service, and pity for the youth's wrongs, the tribune adopted the young Jew as his heir.

A new life opened out again for the son of Ithamar, and he now spent five years learning the art of war at Rome. Arrius had died within that time, and Ben Hur possessed his wealth. A great expedition was preparing to attack the Parthians in the East, and Ben Hur took service in this so that he might experience real warfare, and be the better able to help his countrymen some day to throw off the yoke of Rome.

BEN HUR FINDS AN OLD FRIEND AT ANTIOCH, AND HAS MORE GOOD FORTUNE

It was at the great and populous city of Antioch that the forces were being assembled, and thither Ben Hur went. Here, to his surprise, he found that the greatest merchant, whose ships crowded the harbour, was one Simonides, who had been his father's steward and slave; and, according to Jewish law, all that he possessed, including his own person, was the property of the son of Ithamar.

But in the mind of Ben Hur there was no thought of asserting his power over Simonides, and he sought him out solely to discover what had become of his mother and Tirzah. He found the merchant an aged man, broken in body, for he had been subjected to cruel torture by Gratus, when that tyrant had sought to make him disclose the sources of Ithamar's wealth. Simonides had defeated the designs of the Roman, and had employed his dead master's capital to such good purpose that he had become the richest merchant in all the world. When convinced that Ben Hur was indeed the son of his old master, he offered to surrender everything to him, according to the Jewish law.

Ben Hur, however, resolutely refused to profit by the devotion of Simonides, and would claim no more than that portion of the merchant's wealth which had been the property of his own father; though that of itself was sufficient to make its owner one of the richest men in the East. Liberty he could not give to Simonides or his daughter Esther, for by Jewish law a slave was a slave for ever; but he determined never to assert his ownership. His joy at meeting again one who had known and faithfully served his father was shadowed by the fact that Simonides knew nothing of the fate that had befallen his mother and sister.

Now, Simonides had not at once accepted Ben Hur as his master, but had first made sure of the young man's character and the truth of his story by sending a trusted servant to take him about the crowded scenes of Antioch, and report on his behaviour.

THE YOUNG JEWISH NOBLE MEETS AN ENEMY AND DECIDES TO HUMBLE HIM

During a visit to the great circus where the favourite sport of chariot racing was conducted, Ben Hur saw various charioteers practising their four-horse teams in the arena, and one of these he recognised as the haughty Messala, his old playmate and false friend. A great meeting was to be held in this vast arena in a week's time, when the chariot races would be the centre of interest. Among the various teams there was one of four beautiful Arab horses, which belonged to the Sheikh Ilderim, who was in despair because the Roman driver did not seem to know how to drive them, Arabian horses being used to gentle treatment, and Roman drivers being accustomed to the merciless use of the lash.

Later in the same day Ben Hur had an opportunity to test the giant strength of his muscles, which had been developed by his years as a galley-slave; for the haughty Messala came driving his chariot through the streets regardless of the traffic, and his horses would have run down a camel that rested with its load on the roadway, probably killing an old Egyptian and a beautiful young woman seated within the covered shelter on its back. Springing straight at the nearest horses, he forced them into the centre of the road, and so avoided a collision. Only one of almost superhuman strength could have hoped to achieve such a feat without injury; but Ben Hur knew his strength was far beyond that of the ordinary man.

BALTHASAR, THE WISE MAN, TELLS BEN HUR THE STORY OF THE STAR

Perhaps it was the result of this incident that made him determined to humiliate his enemy, and so, seeking out the Sheikh Ilderim, he offered to drive his Arab horses in the chariot race. A trial run convinced the sheikh that this young man of the powerful arms knew how to manage the team, and he consented to Ben Hur's driving his Arab four in the great race.

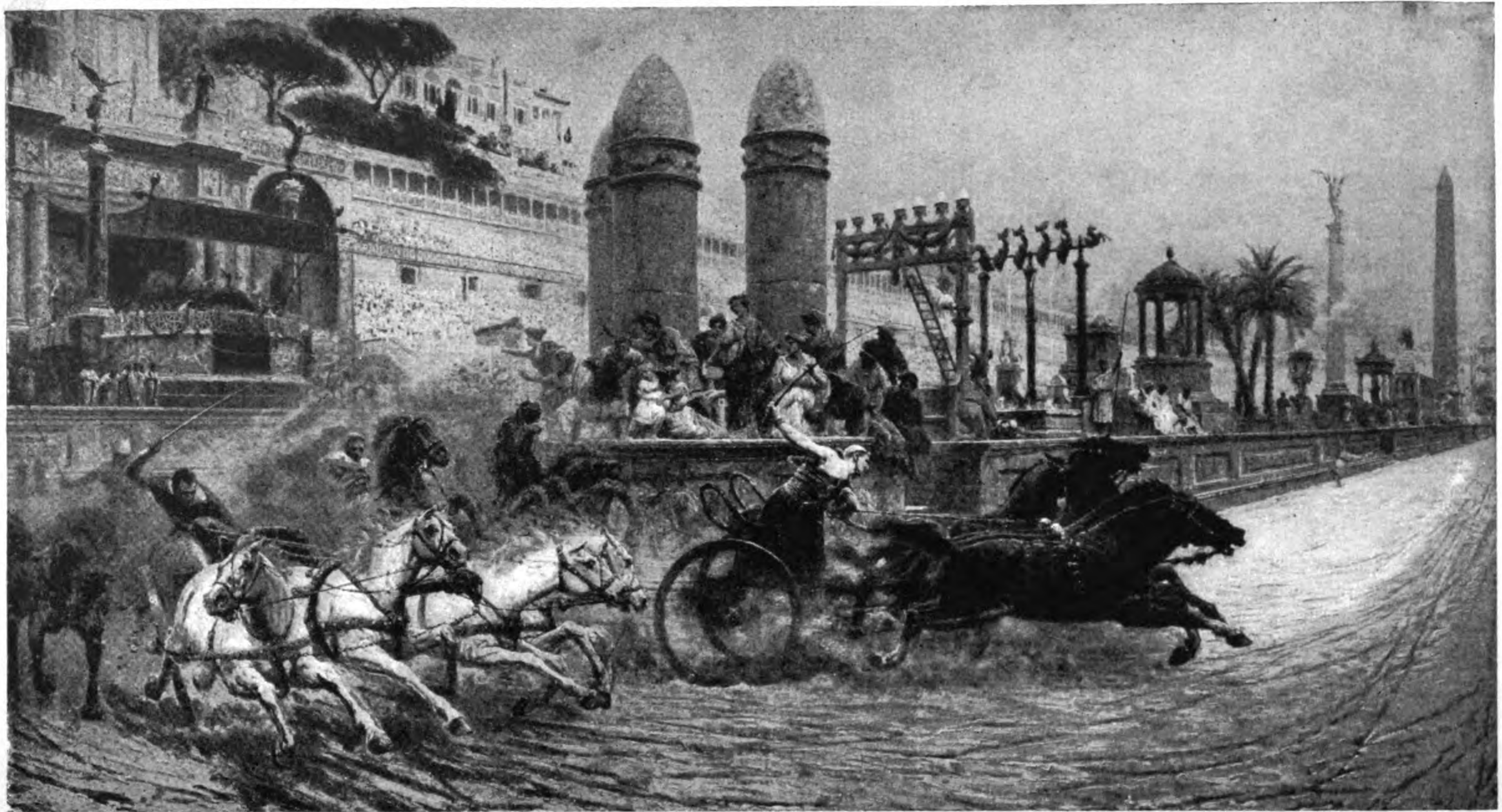
It was at the house of the sheikh that Ben Hur again met the old Egyptian whose life he had saved by preventing Messala's team from running down the camel. Balthasar was his name, and he was one of three wise men, who, having heard a mysterious Voice speaking to them, and, being guided by a star, had foregathered in the desert and made a pilgrimage to Nazareth to look upon the infant Jesus. From the lips of the old man Ben Hur heard the thrilling story, and rejoiced to think that perhaps the time was at hand when the prophesied King of the Jews would arise in his might as a great hero, and lead the ancient people to glorious triumphs over their Roman oppressors.

Simonides had also heard the story of Balthasar, and was eager to devote his enormous riches to fitting out an army to support this King of the Jews when he should rally all the nation to the flag of Judah. Messala had meanwhile recognised Ben Hur, and was busily plotting to remove him from his path.

BEN HUR HAS NEWS OF HIS MOTHER AND SISTER, AND MAKES HIS PLANS

A letter addressed to Gratus by Messala had fallen into the hands of the sheikh's desert riders, and from this it seemed clear that Ben Hur's mother and sister had been imprisoned by the Roman tyrant, and were possibly still languishing in some unknown cell. But as nothing could happen to Ben Hur's hurt before the race, it was decided that as soon as it was over he should go into hiding for a time and afterwards

A GREAT ROMAN CHARIOT RACE IN THE DAYS OF "BEN HUR"



Nothing delighted the people of Rome more than to watch the exciting chariot races that took place in the great arena of the city known as the Circus Maximus. Round and round the chariots went at a tearing pace, as seen in this picture, and often they would collide with one another, either by accident or by the design of the drivers, the horses and charioteers being killed, or crippled for life, as was Messala when Ben Hur deliberately upset his chariot. Ben Hur carried no whip, but steered his horses to victory by skill and strength.

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prosecute his search for his mother and sister. As the day of the sports came round great excitement was displayed about the chances of the Arab team, for, not content with the hope of humiliating Messala by defeating him in the race, Ben Hur employed a loyal Jew to lay a trap for the haughty Roman by inducing him to stake his entire fortune on the outcome of the great race.

THE FIERCE EXCITEMENT OF THE CHARIOT RACES IN THE CIRCUS AT ANTIOCH

In no city of the Roman world at that time, other than Rome itself, could so vast a gathering of people have been got together as that which assembled to witness the sports at Antioch. In the great chariot race there were six contestants, and Ben Hur was the favourite, because he stood for the Jewish people and their hatred of the Romans, and there were many Jews in Antioch.

The excitement of the multitude was intense as they saw the brutal Messala deliberately direct his chariot against one of the others that appeared to be gaining on him, and upset the driver, who was borne from the arena in a dying condition. Ben Hur calmly and without a whip urged his beautiful Arabians to the gallop, seeming to pay no heed to the frantic efforts of his competitors, for his steeds were vastly the superior of all others, except, perhaps, those driven by Messala. Steadily they drew on until it was a race between the Roman and the Jew.

In the breathless stillness of the excited multitude, the thunder of the horses' hoofs and the roll of the chariot-wheels seemed to fill the arena with that sense of hatred which rose in every Jewish breast at the thought of the Roman oppressor, when suddenly Messala, standing sideways in his chariot, brought his long whip with vicious force across the backs of Ben Hur's team.

HOW BEN HUR DEFEATED HIS HAUGHTY RIVAL IN THE GREAT RACE

A shriek of indignation went up from all the Jewish spectators, and from many a Roman, too, as those beautiful Arab steeds, trained in gentleness, and never before touched with a lash, startled and terrified by the pain of the coward's blow, broke wildly from their steady and sure pace. They would have become utterly unmanageable but for the giant strength which three years in the galleys had given to the muscles of Ben Hur. With more than human power, as it seemed to the excited audience, he curbed the frantic beasts, and, bringing them once more into their steady pace, gained again on his Roman enemy.

Seven times round the great arena was the length of the race, and they were now at the last turn, when Ben Hur, urging his horses to their utmost, took the outward sweep, and, coming abreast of the Roman, deftly guided his horses so that the wheel of his chariot caught the outer wheel of Messala's, upsetting it and throwing the Roman beneath the hoofs of his galloping horses. Crippled for life, his enemy was carried from the scene, and Ben Hur was declared the winner, so that every Roman who had wagered in favour of Messala lost his money, and that evil man himself had lost his entire fortune.

Ben Hur at once withdrew to a place of hiding until he might proceed to Jerusalem to search for his mother and sister. But he had little to fear from any vengeance of Gratus, as that unjust governor had now been displaced, and one named Pontius Pilate ruled in his stead.

WHAT HAPPENED AT JERUSALEM UNDER THE NEW GOVERNOR

The new governor, in taking over his charge, had discovered that in a subterranean prison, attended by a dumb gaoler, were two women, who had long been kept there by Gratus, and from the terrible existence they had led they had both been stricken with leprosy.

He gave orders that they should be liberated and sent to the hill outside the city, where, in the dismal caves and tombs, the lepers of Jerusalem were left to sink into death. In passing by the house of Hur, the women saw a young man sleeping at the gate, and knew him for son and brother, but hastened on so that he might rather think them dead than lepers. An old servant encountered them, however, and daily took them food to their hiding-place, under a solemn oath never to reveal their identity.

When Ben Hur at length had news of the fate of his dear ones, every effort to discover them was vain, and, thinking them to be dead, he now devoted himself to raising an army to fight for the King of the Jews when He should come.

Now, at this time, the infant whom Balthasar had journeyed to Nazareth to look upon had grown into manhood, and had been going about throughout Judæa teaching the common people to practise gentleness and mercy, to worship God in holiness, and to believe in Him and His son Jesus if they would be saved. The fame of His teaching had gradually spread to distant places, and although this was no princely conqueror, such as the Jews expected, there were already those who believed Jesus to be in very truth the Messiah.

Among these believers was Balthasar, whom Ben Hur met again on his way to look upon the Teacher he had worshipped as a babe. The young Jew accompanied the old man on his journey, and when he saw the Nazarene he recognised in Him the gentle face and pitying eyes that belonged to the little carpenter who gave him water to drink when the Roman guards were taking him to the galleys. Thrilled and fascinated though he was by this gentlest of teachers, he was not without a feeling of disappointment when he thought of all his preparations to raise an army that would fight with mortal weapons for the King of the Jews.

BEN HUR BECOMES A FOLLOWER OF JESUS OF NAZARETH

But from place to place he followed Jesus, observing Him closely, witnessing the miracles that He wrought, believing in Him, though still hoping that he might be called upon to fight for Him as an earthly prince, for he could not understand why the kingdom of Jesus was not of this world. So it came about that Ben Hur was one of the multitude that went up to Jerusalem with Jesus.

As they were passing the hill of the lepers two women ran down, and, throwing themselves at the feet of the Master, besought Him to make them clean. He saw Jesus bless them and tell them that their faith had made them clean, but, curious, and still a little doubting, Ben Hur lingered behind to see if it was even as the Master had said, and, behold, his mother and his sister stood before him restored to health.

It was required by the law that persons who had been cured of leprosy should tarry without the walls of Jerusalem for nine days before being allowed to return to their homes. Thus Ben Hur, who would not desert his mother and Tirzah during these nine days which they had to wait outside the city, was not present at those world-moving scenes when the Jewish multitude, disappointed at not finding in Jesus the conquering prince of earthly power whom they had expected, had turned against the gentle teacher of humiliation and holiness. Nay, in that short time the rabble and the priests had hounded Him to death and drawn from the reluctant Pontius Pilate consent to His execution. Ben Hur would now have raised his carefully drilled legions to rescue Jesus, but too late he discovered that all but two of his recruits had joined in the hostile rabble.

THE LAST THAT BEN HUR SAW OF HIS LORD AND MASTER

Among the multitude that awful day when Jesus was crucified on the hill of Calvary, Ben Hur stood, in company with Simonides and Balthasar, all believers that the figure on the central cross was that of the true Messiah. So affected by the dreadful scene was Balthasar that, before the earthquake had come to strike terror through all that multitude, his spirit had taken flight to be with Him who perished on the Cross.

It was not many years after this greatest event in the history of the world that Ben Hur, who had married the daughter of Simonides, determined to use his riches in the cause of Christianity, to which Simonides also consecrated his vast wealth. At Rome the infamous Emperor Nero was now at the height of his short but awful reign of persecution, and, by wholesale slaughter, he sought to reduce the growing numbers of Christians throughout his dominions.

HOW BEN HUR HELPED TO BUILD THE CATACOMBS OF ROME

But in these days of persecution the Christians clung tenaciously to their faith, and near the city of Rome we can see to this day the wonderful catacombs, or underground cities, consisting of endless tunnels and cells, and even little chapels, in which, fleeing from the wrath of the monster emperor, the Christians lived and worshipped God hidden from the light of day.

To the construction of these catacombs the fortunes of Ben Hur and Simonides were devoted, and there are no memorials of the early Christians and their devotion to the teaching of Christ more eloquent than these ancient ruins.

CONTINUED ON PAGE 5359.

WHAT THIS STORY TELLS US

THE City of Mexico has connected with it many quaint legends which date back to the time of the Spanish occupancy of this old town. They are genuine folk tales that have come down from lip to lip of a wonder-loving people. Among the learned and unlearned inhabitants alike they are cherished with warm affection, and are "told with a lively relish — to which is added, among the common people — a lively faith."

LEGENDS OF THE CITY OF MEXICO

THE LEGEND OF DOÑA BEATRICE

Once there lived in the city of Mexico a beautiful young girl, Doña Beatrice. She was as beautiful as the summer stars, and all the young men who saw her immediately became suitors. Among them were numbers of the noblest and the richest young men in Mexico. Doña Beatrice remained coldly indifferent to them all, until one night at a great ball she met a young Italian nobleman, Don Martin Scipoli. Then her indifference melted away like snow in the warm sunshine, for so handsome and so lovable was he that Doña Beatrice fell in love with him at first sight. The young nobleman on his side was entranced by the young girl's wonderful flower-like beauty.

Now it happened that Don Martin had a very bad temper and became furiously jealous of all the other lovers of the beautiful Doña Beatrice. When he was not making love to her, he spent his time picking quarrels and fighting duels with the young men of the city. So continual, indeed, were Don Martin's quarrels that Doña Beatrice became very unhappy, and there rose up in her heart a growing dread that her lover cared only for her beautiful face, and that when her loveliness was gone he would care for her no more.

Doña Beatrice thought and prayed over the matter day after day, and week after week, until there came to her a terrible resolve. She would test her lover, and prove whether it was for her beauty alone that he cared. So one day when her father was abroad, she, on one excuse or another, dismissed all the servants. Then she carried to her room a great brazier of burning coals. This she hung before the picture of Santa Lucia on the wall, and fervently prayed the saint to give her strength to carry out her dreadful purpose. Binding a wet handkerchief about her eyes, she bent over the brazier and blew upon the fire until the flames fanned her cheek. Then she plunged her beautiful face into the heart of the coals.

When the horrible deed was done, she draped herself from head to foot all in a virgin white veil and sent for Don Martin. Slowly she drew the veil aside and disclosed to him her face, hideous and scarred, save for her two beautiful eyes glowing like twin points of pure flame. For a moment her lover stood staring in horror. Then he gathered her into his arms. He had stood the test, and in all the years of their happy marriage, Doña Beatrice never had cause to fear that her husband loved her for her beauty alone.

THE PROUD LADY WHO TURNED A SOMERSAULT IN THE STREETS OF THE CITY

Long ago there lived in Mexico a rich, retired merchant, named Don Mendo Quroga y Saurez. So rich was he that all the people envied him for his great possessions. But all his money could not buy him love. When he was sick and old he became very lonely and sad.

Therefore he sent back to Spain to bring over his dead brother's daughter as a companion. But the old man was ill and crotchety, and the young girl was beautiful, selfish, and vain. Though she gladly received all the luxuries that were heaped upon her, she did not love her uncle, nor did she try in any way to make his life pleasanter. Dressing herself in rich satins and velvets, she rolled around in her uncle's carriage, so beauti-

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ful and so proud, that all the young men in the city immediately fell madly in love with her. But Doña Paz scornfully disdained their attentions, for she knew that when her uncle died she would become the richest woman in Mexico.

And so she did, but upon conditions that brought gall and wormwood to her pride. Throughout his long will, Don Mendo uniformly termed her his " beloved niece " and directed that all his estate should become hers. But — at the very end — there was named a condition that had to be fulfilled before she could so much as touch one penny of her great inheritance.

Thus read the will:

" And the condition that I now lay upon my beloved niece is this: That, being dressed in her richest ball dress, and wearing her most magnificent jewels, she shall go in an open coach to the Plaza Mayor at noonday; and that, being come to the Plaza Mayor, she shall walk to the very middle of it, she shall bow her head to the ground; and then, so bowing, she shall turn a somersault. And it is my will that if my beloved niece Paz does not comply precisely with this condition, within six months from the day on which I pass out of life, then of my possessions my beloved niece Paz shall have no part at all. And this condition I lay upon my beloved niece Paz that, in the bitterness of the shame of it, she may taste a little of the bitterness with which her cruelties have filled my dying years."

So overcome with fury and grief was Doña Paz at this condition that she immediately retired to her room, and for days, and weeks, and months nothing was seen of her. On the very last day of the six months named in the will the people of the city were greatly astonished to see the beautiful, wrought-iron doors of Don Mendo's house swung slowly open and through the doorway came Doña Paz, clothed in her richest ball dress and ablaze with jewels.

With her white face held high and her eyes down, the proud woman drove through the city streets into the crowded Plaza Mayor. Thence she dismounted, and, her servants making way for her, she walked to the centre of the square, where she had a rich carpet laid upon the stone pavement. There, in the very middle of the crowd, Doña Paz turned the somersault specified in her uncle's will and came into the inheritance of her wealth, and to the bitterness and shame of her overweening pride.

THE IRON SHOD WOMAN

There lived once in the city of Mexico a good priest who had a very singular housekeeper. The priest's best friend, who was a blacksmith, for some reason instinctively distrusted the old woman and urged the compadre to dismiss her, which he would not do.

One night the blacksmith was awakened by someone knocking at his door. He found two coloured men with a mule, which they asked him to shoe, saying it belonged to his friend, the priest, who was being called away on a sudden journey. When the blacksmith had nailed on the horseshoes the negroes led the mule away, and the blacksmith could see them beating her cruelly as they disappeared out of sight.

The next morning, being worried about the whole matter, the blacksmith went out to the priest's house, and knocked at the door, but no one answered. At last, however, the priest himself appeared, still half asleep. He said he had not gone on any journey, and had not sent his mule to be shod in the middle of the night. Then being thoroughly awake, he began to laugh at his friend for the way in which he had been fooled. The two men went to the old housekeeper's door to ask her if she knew anything of the matter. When they knocked there was no answer. Louder and louder they hammered on the door, until, at last, being thoroughly frightened, they broke it down.

Before them on the bed lay the old housekeeper dead, and, horrible sight! on her hands and feet were nailed the horseshoes the blacksmith had fastened to the hoofs of the mule! The terrified men agreed that the woman must have committed some great sin and the two negroes, who were devils, had changed her into a mule to punish her.

THE NEXT BOOK OF STORIES IS ON PAGE 5305.

The Child's Book of SCHOOL LESSONS

READING

HOW THE ANIMALS GOT THEIR NAMES

CONTINUED FROM 5120

We learn something here about the names of animals, which are quite as interesting as those of flowers.

Antelope is from the Greek *antholops*, which may mean "bright eyes," although it is not quite certain. The name Dorcas, which is Greek for gazelle, also has the same meaning, and so has our word dragon.

Ass is a word found in several languages: it is *assa* in Anglo-Saxon, *asilus* in Gothic, and *asinus* in Latin. The Latin word is seen in the "Pons Asinorum," or "Asses' Bridge," a name given to a proposition of Euclid. It is thought to be connected with the Hebrew word *athon*, a she ass.

Badger means "a dealer in corn." The name was given to this animal because it was supposed to feed on corn. Similarly, a badger was called *blaireau* in French, from the French word *blé*, meaning corn.

Bear is the Anglo-Saxon word *bera*; in German this appears as *bär*, and in Latin as *fera*, meaning a wild beast. B and F can change places with each other in languages, so *bera* and *fera* are not so different as they look. Our words fierce and ferocious come from the Latin *fera*, and are therefore connected with bear.

Beaver is from the Anglo-Saxon *befer* or *beofor*, and from the Latin *fiber*. Here again an *f* has become a *b*. and *fiber* has become beaver.

Buffalo is from the Greek *boubalos*, a species of antelope. The *bou* means ox, and is seen in our word beef.

Camel is found in Latin as *camelus*, in Greek as *kamelos*, and in Hebrew as *gamal*. It is a very old word indeed, and means a carrier, or bearer.

Cat is a word found in many languages in almost the same form. Our Anglo-Saxon forefathers called a cat a *catt*, or *cat*, hundreds of years ago; and we do the same to-day. Kitten is a little cat. The Gaelic for cat is *pus*, from which we get *puss* and *pussy*. Tabby, in tabby cat, gets its name from Attabiya, a part of Bagdad, in which a kind of rich wavy silk was made. Tabby cats look like striped silk.

Cow is from the Anglo-Saxon *cu*, of which the plural form was *cy*; from this plural we get our word *kine*. The original root of the word was *gu*, meaning to bellow.

Deer is the Anglo-Saxon *deor*; the same word comes in German as *thier*, meaning an animal. Its original meaning was "a wild beast," and it is no doubt connected with the Latin *fera*. Compare with bear.

Dog is from the Middle English *doggë*. The Dutch word *dog* means a mastiff.

Donkey is a slang word for ass. Some think it comes from Duncan, which may have been the name, perhaps, of a very stupid person, just as Dicky, which is the word for ass in some parts of England, comes from Dick, or Richard. But others think it is dun-ik-ie, a double diminutive of the word *dun*, from its colour; *dun* means "of a dark colour," and was a common name for a horse or an ass. The second of these explanations is probably correct.

DROMEDARY gets its name from its quick running powers. The Greek word is *dromos*, running. This word comes also in hippodrome, a place where horses run.

ELEPHANT used to be thought to come from the Hebrew word *eleph*, meaning an ox. But it is far more likely that it comes from a word which is the root of our word "ivory." The Anglo-Saxon form, *olfend*, is used for our word "camel" in old versions of the Gospel according to St. Mark.

FOX is another Anglo-Saxon word; it was *fox* in Anglo-Saxon, and is *fuchs* in German to-day. In the feminine it becomes *vixen*.

GIRAFFE is from the Spanish *girafa*, and the Arabic *zaraf*. This animal is also called the camelopard, because its shape is something like a camel and it is spotted like a leopard.

HIPPOPOTAMUS means river-horse, from the Greek *hippos*, a horse, and *potamos*, river.

HOG is probably connected with the verb "to hack," or "to hag," as in haggle, meaning to cut. In parts of England to-day, to hog means to cut.

HORSE is from the Anglo-Saxon *hors*; in German the word appears as *ross*, meaning horse. It is probably from a root meaning "to run," found in the Latin *curro*, I run, and in the English current, course.

HOUND is the Anglo-Saxon *hund*, and is really the same word as the Greek *kyon*, a dog, and the Latin *canis*, a dog, though the words do not look alike. But *h* and *k* and *c* can interchange, just as we saw was the case with *b* and *f*. The French *chien*, dog, is from the Latin *canis*, and was therefore the same word as hound originally.

JACKAL is from the Persian word *shaghal*. The Hebrew for fox is *shual*, and these words are probably connected.

LEOPARD is made up of two words, *leo*, a lion, and *pardus*, a panther. This animal was supposed to be a cross between a lion and a panther.

LION is found in many languages: French, *lion*; Latin, *leo*, *leonem*; Greek, *leon*; German, *lõwe*.

MOLE means "earth-thrower," and is short for mold-warp. Mold means earth, and to warp means to throw.

MONKEY is from the Italian *monicchio*, meaning "a little old woman." It is the same word as Madonna, which means mistress. Madonna was shortened to Monna, and Monna became Monicchio.

MOUSE means a thief, a stealer. It is found in Anglo-Saxon, Latin, and Greek as *mus*, which comes from the old Sanscrit word *mush*, to steal.

MULE is a word that has lost a *c* or a *k* from the middle. It is connected with the Greek *muklos*, an ass. In Anglo-Saxon it is *mul*.

OX comes from the Sanscrit word *ukshan*, the root of which means to sprinkle. This is also connected with the root appearing in *humid*, wet.

PANTHER is from the Greek *panthér*, and the Latin *panthera*. Another word for panther is pard, from the Latin *pardus*; this word comes in leopard. The Greeks thought that the pard was the male, and the panther the female.

PIG is the Anglo-Saxon *pecg*; it appears as *big* in Dutch, *p* and *b* being interchangeable.

PORCUPINE means "spiny pig." It comes from the Latin *porcus*, a pig, from which our word pork comes, and *spina*, spine. Anyone who has seen this animal prick up its spines or quills will understand why it is so named.

RAT is perhaps from a root *rad*, meaning to scratch; if so, it is connected with rodent. There is a Sanscrit word *rada*, meaning a tooth.

RHINOCEROS comes from two Greek words—*rhinos* meaning "of a nose," and *keras*, horn. It was so called because of the horn on its nose.

SHEEP is the Anglo-Saxon *sceap*, and the German *schaf*. Its actual meaning is not known.

SOW is from the Anglo-Saxon *su*; it is related to the Latin *sus*, a pig, and the Greek *hus*. Swine is another form of the same word. The root of them all is *su*, to produce.

STAG now means a male deer. But it used to be applied to the males of other animals, for the word simply means male.

TIGER is from the Latin *tigris*, which comes from a Persian word meaning an arrow. This name was given to the River Tigris because it was so swift-running. Compare our own English phrase "as swift as an arrow."

FRACTIONS, OR PARTS OF NUMBERS

A FRACTION of a thing means a *part* of it. For example, a cent is a fraction of a dollar. We are going to learn the way in which we express how much of a dollar is equal to a cent.

Suppose we divide, say, an apple into ten equal parts. Then each of the parts is called one-tenth of the apple; that is, we have divided the apple into fractions called tenths. The *number of parts* into which we divide a thing gives the *name* to the fraction. For this reason the number of parts is called the *denominator* of the fraction. Going back for a moment to the apple divided into ten equal parts: since each part is a tenth, we may evidently speak of two of the parts as "two tenths," and of five parts as "five tenths." These numbers, 2 and 5, are called the *numerators* of the fractions two-tenths and five-tenths, because they show the number of parts which must be taken to make the particular fraction "two-tenths" or "five-tenths."

Thus a fraction consists of two things, a numerator and a denominator. We represent a fraction, in writing, by placing the number which forms its denominator under the number which forms its numerator, and separating the two by a line. Thus, five-tenths is represented by $\frac{5}{10}$, two-tenths by $\frac{2}{10}$. In the same way, $\frac{4}{7}$ indicates that a thing has been divided into seven equal parts and four of the parts taken. From what has been said, it is clear that the fraction of a dime which is equal to a cent is $\frac{1}{10}$, for if we exchange a dime for ten equal coins, each of them is a cent. Hence, we see that five cents are $\frac{5}{10}$ of a dime.

Now, we know that we can exchange a dollar for four equal coins called *quarters*, or *twenty-five cents*. Thus 2 quarters are equal to one-half, or $\frac{1}{2}$, of a dollar. It appears, then, that $\frac{2}{4}$ of a dollar and $\frac{1}{2}$ of a dollar each represent the same thing. But if we divide the numerator and the denominator of the fraction $\frac{2}{4}$ by their common factor, 2, we obtain for a result $\frac{1}{2}$. Evidently, therefore, if we divide both the numerator and denominator of a fraction by the same number, we do not alter the value of it. To examine this a little more, consider a dollar again. Fifty cents are contained twice in one dollar, so that fifty cents may be represented by the fraction $\frac{1}{2}$ of one dollar. Again, there are 100 cents in one dollar, so that one cent is $\frac{1}{100}$ of one dollar, and therefore fifty cents make $\frac{50}{100}$ of one dollar. In the same way ten dimes are equal to one dollar, so that one dime is equal to $\frac{1}{10}$ of a dollar, and therefore five dimes, or fifty cents, make $\frac{5}{10}$ of one dollar. Thus the fractions $\frac{2}{4}$, $\frac{50}{100}$, $\frac{5}{10}$ all represent the same amount, or $\frac{1}{2}$ of a dollar.

Now, we get $\frac{1}{2}$ from $\frac{50}{100}$ if we divide both the numerator and the denominator by 50, and we obtain $\frac{1}{2}$ from $\frac{5}{10}$ by dividing numerator and denominator by 5. Or we may look at it the other way, and consider that $\frac{50}{100}$ is obtained from $\frac{1}{2}$ if we *multiply* both numerator and denominator of $\frac{1}{2}$ by 50. We therefore arrive at the important fact that, if the numerator and denominator of a fraction be both multiplied by the same number, or both divided by the same number, the value of the fraction remains unaltered.

A fraction whose numerator and denominator have no common factor is said to be in its *lowest terms*. We therefore reduce a fraction to its lowest terms by *cancelling*, or dividing by, the highest common factor of the numerator and denominator.

EXAMPLE

Reduce $\frac{42}{54}$ to its lowest terms.

Here it is easily seen that the factors of 42 are 2, 3, and 7, while those of 54 are 2, 3, 3, 3. Thus, 2 × 3, or 6, is the H.C.F. Dividing the numerator and denominator by 6, we obtain $\frac{7}{9}$ as the fraction in its lowest terms.

Since we may multiply the numerator and denominator of a fraction by the same number without altering the value of the fraction, it is a simple matter to so arrange two or more given fractions that they will all have the same denominator.

EXAMPLE

Express $\frac{5}{6}$, $\frac{8}{9}$, $\frac{14}{15}$ as fractions with the same denominator.

We can choose, for our denominator, any number that is a common multiple of 6, 9, and 15, but, for convenience, we always use the least number possible.

Now, the L.C.M. of 6, 9, and 15 is 90. Since 6 is contained 15 times in 90, we must multiply the denominator of our first fraction by 15 in order to make 90. But if we multiply the denominator by 15 we must also multiply the numerator by the same number, or we shall alter the value of the fraction. Thus, instead of $\frac{5}{6}$ we have $\frac{5 \times 15}{6 \times 15}$, or $\frac{75}{90}$. In the same way, the denominator, 9, of our second fraction is contained 10 times in 90, so we multiply numerator and denominator by 10, and obtain $\frac{8 \times 10}{9 \times 10}$, or $\frac{80}{90}$. Finally, the third fraction must be multiplied, numerator and denominator, by 6; which gives us $\frac{14 \times 6}{15 \times 6}$, or $\frac{84}{90}$. Thus, the three given fractions, when expressed with a common denominator, become $\frac{75}{90}$, $\frac{80}{90}$, $\frac{84}{90}$.

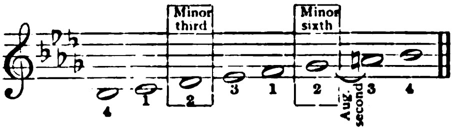
This gives us a method of comparing the size of fractions. For it is clear that if two fractions have the same denominator, then the greater of the two is the fraction whose numerator is greater. For example, if we wish to know which is greatest of the fractions $\frac{5}{6}$, $\frac{8}{9}$, $\frac{14}{15}$, we first express them with a common denominator, as above. Then, evidently $\frac{84}{90}$ is the greatest; that is, $\frac{14}{15}$ is the greatest of the three.

MUSIC

THE DISTINGUISHING NOTES

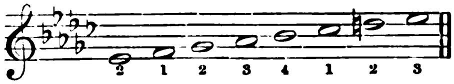
The good little fairies about whom we heard in our last talk are looked upon as guides to the key, and bear the grand title *Distinguishing Notes*, and now we are to hear more about them.

The tonic minor of B♭ major is B♭ minor, and if we want to find the signature, we walk up a minor third and find D♭. We have already discovered that D♭ has five flats, therefore B♭ minor, the relative minor to D♭ major, must also possess five flats, only little Fairy A on the seventh of the key will hang up her "return card" ♮ at the last moment. Here is the picture of the fairy ladder known as B♭ minor, *the fourth finger of the right hand still belonging to B♭.*

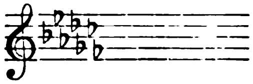


Little A♮, the *distinguishing note*, tells us that the scale is B♭ minor, and not D♭ major.

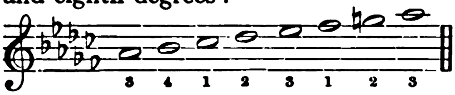
The fairies think we can write E♭ minor by ourselves; the *signature* must be the same as that of the relative major, G♭, but little Fairy D will hang out her return card to let us know that it is the scale of E♭ minor:



The relative major to A♭ minor is C♭, and so far it is a ladder of which we know nothing. The fairies whisper that it is quite enough for us to know that C♭ has seven flats. G♭ had six flats, and as the fourth degree of G♭ is C♭, the new scale will be C♭, and as the fourth degree of C♭ is F♭, the sign of the key will be this:

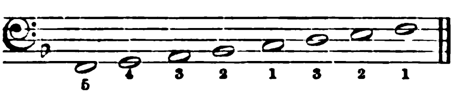


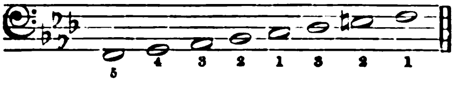
and the little flat goblin who does not do duty after all is G♭, because Fairy G comes back just in time to give us the necessary semitone between the seventh and eighth degrees:



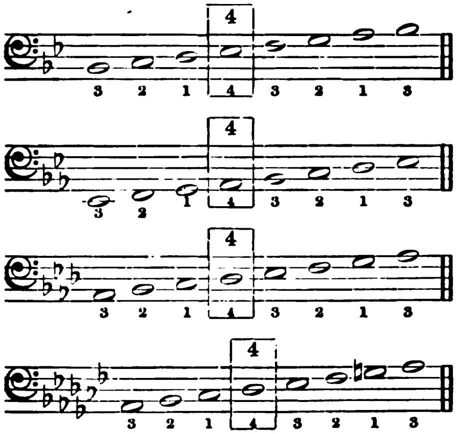
And again, for the tenth time, we connect the fourth finger of the right hand with B♭.

But the fairies consider that it is quite time to think a little about the left hand. Now, this left hand is a great lover of old customs, and is very sorry to leave off putting the fourth finger on the second note of the scale, as it did in the scales of C, G, D, A, and E, so it begs to be allowed to do the same thing once more in the scales of F major and F minor. We know quite well how these scales are made, so we only need a picture to show the fingering of the left hand.



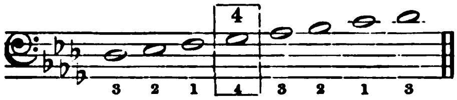


After this, the fourth finger of the left hand must try to be a little more original, and find a fresh idea, for it does not do for even a fourth finger to remain in one groove. After much thought, it made up its mind to live on the fourth note of five scales. These five scales are B♭ and E♭ major, A♭ major and minor, and D♭ major.

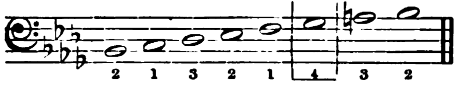


We must be sure to notice the return of Fairy G, telling us that it is the fairy ladder of A♭ minor, and not the scale of C♭ major.

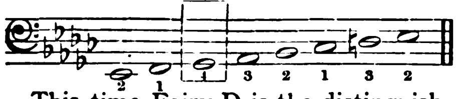
We have still one more scale in which the fourth finger of the left hand is to be found on the fourth note, namely, the scale of D♭ major.



Having made one move, this fourth finger of the left hand already thinks that another change is desirable, and it says: "It is now my intention to take up my stand on G♭ in the scales of B♭ and E♭ minor, and on F♯ in the scales of C♯ and F♯ minor.

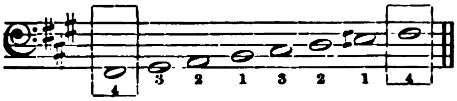


Look at Fairy A with her "return card," showing us that this is the scale of B♭ minor, and not D♭ major.



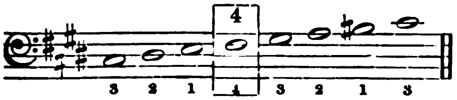
This time Fairy D is the distinguishing note, telling us we are playing the scale of E♭ minor, and not G♭ major.

The fairies intend to have a little joke with us. If we find F♯ on the piano, it seems to be the very same note as G♭. The *pitch* of the note—that is, the height or depth of the note—is just the same on the piano, but our little friends *have changed its name* to make things easier for us. If we talk about the scale of D♭ minor, we shall find ourselves having to deal with such a number of little flat goblins that we shall be quite perplexed, so the fairies wave their magic wands over little Goblin G♭, saying: "We command little F♯ to appear." Immediately the whole idea is changed, for F♯ is the relative minor to A major, and A major having only three sharps, F♯, C♯, and G♯, it follows that the relative minor can only have three, so here we are:



The distinguishing note is little E♯, who is following the fairies' example, and carrying out the game to perfection by throwing her banner over Fairy F, thus transforming her into E♯, and giving us our much-loved semitone between the seventh and eighth degrees. Just in the same way we should find it very difficult to think of all the flats in D♭ minor, so again the fairy transformation scene takes place, and we find ourselves talking about C♯ minor, and placing our fourth finger on F♯.

We know, of course, that the relative major to C♯ minor is E major, because C♯ to E is a minor third, and therefore, as the key-signature of E major has four sharps, F, C, G, D, so has its relative minor, C♯.



And again we see the little fairy on the seventh degree playing the "change of name, but not of pitch," game, and we say: "Little B♯ is our distinguishing note." It has answered our purpose better to talk about the scale of C♯ minor *now;* but, as the fourth finger of the left hand comes on F♯, the fourth note, it really belongs to the same list as the five scales, B♭ and E♭ major, A♭ major and minor, and D♭ major.

FABLES OF ÆSOP THE SLAVE IN FRENCH

The English versions of these fables are on page 3310.

LE VILLAGEOIS ET LA VIPÈRE

Par une froide journée d'hiver, un villageois trouva sous une haie une vipère qui était presque morte de froid. L'homme eut pitié de la pauvre bête, l'emporta chez lui et la déposa sur un tapis devant un bon feu. Au bout de quelque temps, la chaleur ranima la vipère qui se mit aussitôt à siffler et à menacer de mordre les enfants.

Le villageois, entendant ses enfants crier, entra en courant, saisit un bâton et tua la vipère en disant : " Est-ce ainsi que tu récompenses ceux qui essayent de te sauver la vie ? "

Ceux qui n'ont pas de reconnaissance pour les bienfaits, n'en reçoivent pas d'autres.

LE RENARD ET LA CHÈVRE

Un renard, un jour, tomba dans un puits et ne put en sortir. Quelques heures après, une chèvre passa par là, et, ayant soif, elle demanda au renard si l'eau était bonne.

" Elle est si bonne, si douce," dit le renard, " que j'en ai bu tant que je crains d'être malade."

Là-dessus, la chèvre, sans plus d'hésitation, sauta dans le puits afin de boire. Le renard aussitôt bondit sur son dos, et réussit ainsi à sortir du puits, laissant à la pauvre chèvre le soin de s'échapper comme elle pourrait.

Examinez avec soin les conseils de ceux que vous ne connaissez pas.

L'ENFANT QUI CRIAIT "AU LOUP"

Il y avait une fois un petit berger qui gardait un troupeau de moutons dans les champs. Par plaisanterie, il criait souvent : " Au loup ! Au loup ! "

A ce cri, les hommes qui travaillaient dans les champs voisins, couraient au secours, mais après avoir été trompés deux ou trois fois de cette manière, ils résolurent de ne plus faire attention aux cris de l'enfant.

Quelque temps après, un loup vint réellement et le petit berger appela pour de bon. Mais personne ne s'inquièta de ses cris, et ainsi, ses moutons furent tués par le loup.

Si nous mentons, personne ne nous croira, même quand nous dirons la vérité.

JUPITER ET L'ÂNE

Un âne, appartenant à un jardinier, étant las de porter chaque jour une charge de choux au marché, pria le dieu Jupiter de lui donner un nouveau maître. Jupiter consentit à lui donner un tuilier qui l'envoya chaque jour au marché avec une charge de tuiles.

Le pauvre baudet, trouvant sa tâche plus pénible que jamais, demanda au dieu de changer encore une fois son maître. Cette fois, Jupiter lui donna un tanneur, qui le traita plus durement et cruellement encore que ses deux autres maîtres.

Quand ce fût trop tard, l'âne souhaita d'être resté avec son premier maître.

Soyez satisfait de votre sort.

LE RENARD ET LE LION

La première fois qu'un renard vit un lion, et entendit son terrible rugissement, il fut si effrayé qu'il se mit à trembler, étendu à terre, et qu'il mourût presque de terreur.

La fois suivante, il fut moins effrayé du roi des animaux, et osa le regarder timidement. La troisième fois que les deux animaux se rencontrèrent, le renard avait perdu toute crainte, et il s'approcha froidement du lion et se mit à lui causer comme s'il eût été un vieil ami.

La familiarité engendre le mépris.

THE NEXT SCHOOL LESSONS ARE ON PAGE 5387

A POEM OF THE SKY

In any selection from the great English poet, Shelley, this poem always finds a place, as it is at once characteristic of the author and presents in the most finished poetic style, with a rare wealth of imagery and pictorial truth, a simple scientific explanation of how clouds are formed. We could tell in a very few words, of course, the process of Nature which results in the formation and the dissolving of a cloud, but the poet has here chosen to show us that these simple facts can be clothed with beautiful words which invest them with imaginative grandeur.

THE CLOUD

CONTINUED FROM 5142

I BRING fresh showers for the thirsting flowers,
From the seas and the streams;
I bear light shade for the leaves when laid
In their noonday dreams.
From my wings are shaken the dews that waken
The sweet birds every one,
When rocked to rest on their mother's breast,
As she dances about the sun.
I wield the flail of the lashing hail,
And whiten the green plains under;
And then again I dissolve it in rain,
And laugh as I pass in thunder.

I sift the snow on the mountains below,
And their great pines groan aghast;
And all the night 'tis my pillow white,
While I sleep in the arms of the blast.
Sublime on the towers of my skyey bowers,
Lightning, my pilot, sits;
In a cavern under is fettered the thunder,
It struggles and howls at fits.
Over earth and ocean, with gentle motion,
This pilot is guiding me,
Lured by the love of the genii that move
In the depths of the purple sea;
Over the rills, and the crags, and the hills,
Over the lakes and the plains,
Wherever he dream, under mountain or stream,
The Spirit he loves remains;
And I all the while bask in heaven's blue smile,
Whilst he is dissolving in rains.

The sanguine sunrise, with his meteor eyes,
And his burning plumes outspread,
Leaps on the back of my sailing rack,
When the morning star shines dead.
As, on the jag of a mountain crag
Which an earthquake rocks and swings,
An eagle, alit, one moment may sit
In the light of its golden wings;
And when sunset may breathe, from the lit sea beneath,
Its ardours of rest and of love,
And the crimson pall of eve may fall
From the depths of heaven above,
With wings folded I rest on mine airy nest,
As still as a brooding dove.

That orbèd maiden, with white fire laden,
Whom mortals call the moon,
Glides glimmering o'er my fleece-like floor,
By the midnight breezes strewn;
And wherever the beat of her unseen feet,
Which only the angels hear,
May have broken the woof of my tent's thin roof,
The stars peep behind her and peer;
And I laugh to see them whirl and flee,
Like a swarm of golden bees,
When I widen the rent in my wind-built tent,
Till the calm rivers, lakes, and seas,
Like strips of the sky fallen through me on high,
Are each paved with the moon and these.

I bind the sun's throne with a burning zone,
And the moon's with a girdle of pearl;
The volcanoes are dim, and the stars reel and swim,
When the whirlwinds my banner unfurl.
From cape to cape with a bridge-like shape,
Over a torrent sea,
Sunbeam-proof, I hang like a roof,
The mountains its columns be.
The triumphal arch through which I march
With hurricane, fire, and snow,
When the powers of the air are chained to my chair,
Is the million-coloured bow;
The sphere-fire above its soft colours wove,
While the moist earth was laughing below.

I am the daughter of earth and water,
And the nursling of the sky;
I pass through the pores of the ocean and shores;
I change, but I cannot die.
For after the rain, when, with never a stain,
The pavilion of heaven is bare,
And the winds and sunbeams, with their convex gleams,
Build up the blue dome of air—
I silently laugh at my own cenotaph,
And out of the caverns of rain,
Like a child from the womb, like a ghost from the tomb,
I arise and upbuild it again.

THE BETTER LAND

Although Mrs. Hemans was a somewhat sentimental poet, and inclined to dwell too much on the gloomy side of life, a good many of her pieces are likely long to endure, and none more likely than this song, which has been set to very appropriate music. The sentiment here is natural and unstrained, and, as it touches with dramatic intensity the longing of every feeling heart, it is no wonder that "The Better Land" has so long enjoyed popular favour.

I hear thee speak of the better land,
Thou call'st its children a happy band;
Mother! oh, where is that radiant shore?
Shall we not seek it, and weep no more?
Is it where the flower of the orange blows,
And the fire-flies glance through the myrtle boughs?
Not there; not there, my child

Is it where the feathery palm-trees rise,
And the date grows ripe under sunny skies?
Or 'midst the green islands of glittering seas,
Where fragrant forests perfume the breeze,
And strange bright birds on their starry wings
Bear the rich hues of all glorious things?
Not there; not there, my child.

Is it far away in some region old,
Where the rivers wander o'er sands of gold?
Where the burning rays of the ruby shine,
And the diamond lights up the secret mine,
And the pearl gleams forth from the coral strand—
Is it there, sweet mother, that better land?
Not there, not there, my child.

Eye hath not seen it, my gentle boy,
Ear hath not heard its deep songs of joy;
Dreams cannot picture a world so fair,
Sorrow and death may not enter there;
Time doth not breathe on its fadeless bloom;
For beyond the clouds, and beyond the tomb,
It is there; it is there, my child.

THE KING'S PICTURE

In this poem, by an American writer named Helen B. Bostwick, we have a picturesque illustration of the old saying that there is some touch of good in all things, and that, even where we least expect it, some virtue may be found.

The king from the council chamber
Came, weary and sore of heart;
He called to Iliff, the painter,
And spoke to him thus apart:
" I'm sickened of faces ignoble,
Hypocrites, cowards, and knaves;
I shall shrink in their shrunken measure,
Chief slave in a realm of slaves.

" Paint me a true man's picture,
Gracious, and wise, and good,
Dowered with the strength of heroes
And the beauty of womanhood.
It shall hang in my inmost chamber,
That, thither when I retire,
It may fill my soul with its grandeur,
And warm it with sacred fire."

So the artist painted the picture,
And it hung in the palace hall;
Never a thing so lovely
Had garnished the stately wall.
The king, with head uncovered,
Gazed on it with rapt delight,
Till it suddenly wore strange meaning—
Baffled his questioning sight.

For the form was the supplest courtier's,
Perfect in every limb;
But the bearing was that of the henchman,
Who filled the flagons for him;
The brow was a priest's, who pondered
His parchment early and late;
The eye was the wandering minstrel's,
Who sang at the palace gate.

The lips, half sad and half mirthful,
With a fitful trembling grace,
Were the very lips of a woman
He had kissed in the market-place;
But the smiles which her curves transfigured,
As a rose with its shimmer of dew,
Was the smile of the wife who loved him—
Queen Ethelyn, good and true.

Then, " Learn, O king," said the artist,
" This truth that the picture tells—
That in every form of the human
Some hint of the highest dwells;
That, scanning each living temple
For the place where the veil is thin,
We may gather by beautiful glimpses
The form of the God within."

PLANTING THE APPLE-TREE

William Cullen Bryant, our American poet, was the author of these verses, which, in all likelihood, were suggested to him by his having himself planted an apple-tree. The planting of any tree is a favourite subject of the poets, leading the mind in the most natural way to contemplate the continuous growth of the tree possibly for centuries after the hand that planted it lies still. Tree-planters are at work all over the world, however, who never give a thought to the poetic side of their occupation, yet their labours are as suggestive of romance as any we can engage in.

Come, let us plant the apple-tree,
Cleave the tough greensward with the spade,
Wide let its hollow bed be made;
There gently lay the roots, and there
Sift the dark mould with kindly care,
And press it o'er them tenderly,
As, round the sleeping infant's feet,
We softly fold the cradle-sheet;
So plant we the apple-tree.

What plant we in this apple-tree?
Buds, which the breath of summer days
Shall lengthen into leafy sprays;
Boughs, where the thrush, with crimson breast,
Shall haunt and sing, and hide her nest;
We plant, upon the sunny lea,
A shadow for the noontide hour,
A shelter from the summer shower,
When we plant the apple-tree.

What plant we in this apple-tree?
Sweets for a hundred flowery springs
To load the May-wind's restless wings,
When from the orchard-row he pours
Its fragrance through our open doors;
A world of blossoms for the bee,
Flowers for the sick girl's silent room,
For the glad infant sprigs of bloom,
We plant with the apple-tree.

What plant we in this apple-tree?
Fruits that shall swell in sunny June,
And redden in the August noon,
And drop, when gentle airs come by,
That fan the blue September sky,
While children come, with cries of glee,
And seek them where the fragrant grass
Betrays their bed to those who pass,
At the foot of the apple-tree.

The fruitage of this apple-tree,
Winds, and our flag of stripe and star,
Shall bear to coasts that lie afar,
Where men shall wonder at the view,

And ask in what fair climes they grew ;
And sojourners beyond the sea
Shall think of childhood's careless day,
And long, long hours of summer play,
In the shade of the apple-tree.

Each year shall give this apple-tree
A broader flush of roseate bloom,
A deeper maze of verdurous gloom,
And loosen, when the frost clouds lower,
The crisp brown leaves in thicker shower.
The years shall come and pass, but we
Shall hear no longer, where we lie,
The summer's songs, the autumn's sigh,
In the boughs of the apple-tree.

" Who planted this old apple-tree ? "
The children of that distant day
Thus to some aged man shall say ;
And, gazing on its mossy stem,
The grey-haired man shall answer them :
" A poet of the land was he,
Born in the rude but good old times :
'Tis said he made some quaint old rhymes,
On planting the apple-tree."

RAIN IN SUMMER

Longfellow, the writer of the following poem, is one of the great prophets of cheerfulness, and here he teaches us the very necessary lesson that though a rainy day may not be quite to our liking, it may be a mercy to the farmers, and, indirectly, a benefit to us as well.

How beautiful is the rain !
After the dust and the heat,
In the broad and fiery street,
In the narrow lane,
How beautiful is the rain !

How it clatters along the roofs,
Like the tramp of hoofs !
How it gushes and struggles out
From the throat of the overflowing spout !
Across the window-pane
It pours and pours ;
And swift and wide,
With a muddy tide,
Like a river down the gutter roars
The rain, the welcome rain !

The sick man from his chamber looks
At the twisted brooks ;
He can feel the cool
Breath of each little pool ;
His fevered brain
Grows calm again,
And he breathes a blessing on the rain.

From the neighbouring school
Come the boys,
With more than their wonted noise
And commotion ;
And down the wet streets
Sail their mimic fleets,
Till the treacherous pool
Engulfs them in its whirling
And turbulent ocean.
In the country on every side,
Where far and wide,
Like a leopard's tawny and spotted hide
Stretches the plain,
To the dry grass and the drier grain
How welcome is the rain !

In the furrowed land
The toilsome and patient oxen stand ;
Lifting the yoke-encumbered head,
With their dilated nostrils spread,
They silently inhale
The clover-scented gale,
And the vapours that arise
From the well-watered and smoking soil.
For this rest in the furrow after toil
Their large and lustrous eyes
Seem to thank the Lord,
More than man's spoken word.

Near at hand,
From under the sheltering trees,
The farmer sees
His pastures and his fields of grain,
As they bend their tops
To the numberless beating drops
Of the incessant rain.
He counts it as no sin
That he sees therein
Only his own thrift and gain.

SOMEBODY'S MOTHER

We have here a familiar example of the sentimental verse which was very popular a generation ago, but is now passing out of favour. We can scarcely dignify it with the name of poetry, but, as there can be no question that its sentiment is entirely worthy, and it is expressed in simple and unaffected words, we venture to give it a place in these selections.

The woman was old and ragged and gray,
And bent with the chill of the winter's day ;

The street was wet with a recent snow,
And the woman's feet were aged and slow.

She stood at the crossing, and waited long,
Alone, uncared for, amid the throng

Of human beings who passed her by,
Nor heeded the glance of her anxious eye.

Down the street, with laughter and shout,
Glad in the freedom of " school let out,"

Came the boys like a flock of sheep,
Hailing the snow piled white and deep.

Past the woman so old and gray
Hastened the children on their way,

Nor offered a helping hand to her—
So meek, so timid, afraid to stir

Lest the carriage wheels or the horses' feet
Should crowd her down in the slippery street.

At last came one of the merry troop—
The gayest laddie of all the group ;

He paused beside her, and whispered low,
" I'll help you across if you wish to go."

Her aged hand on his strong young arm
She placed, and so, without hurt or harm,

He guided the trembling feet along,
Proud that his own were firm and strong.

Then back again to his friends he went,
His young heart happy and well content.

" She's somebody's mother, boys, you know,
For all she's aged and poor and slow ;

" And I hope some fellow will lend a hand
To help *my* mother, you understand,

" If ever she's poor and old and gray,
When her own dear boy is far away."

And " somebody's mother " bowed low her head
In her home that night, and the prayer she said

Was : " God, be kind to the noble boy,
Who is somebody's son and pride and joy ! "

AN INDIAN AT THE BURIAL-PLACE OF HIS FATHERS

William Cullen Bryant seeks in this fine poem to suggest the thoughts that come to a “noble red man”—as the Indian of America is sometimes, and not too truly, described—visiting the burial-place of his fathers. The red man is a picturesque figure, but he is at best a savage, and the peaceful peopling of his country by white men is a better thing than leaving it to the wild misrule of bloodthirsty tribes. The savage is an attractive creature in poetry and fiction, but the civilised man, with all his faults, does more to help the world along and promote the cause of humanity.

It is the spot I came to seek—
My father's ancient burial-place,
Ere from these vales, ashamed and weak,
Withdrew our wasted race.
It is the spot—I know it well—
Of which our old traditions tell.

For here the upland bank sends out
A ridge toward the river-side ;
I know the shaggy hills about,
The meadows smooth and wide,
The plains, that, toward the southern sky,
Fenced east and west by mountains lie.

A white man, gazing on the scene,
Would say a lovely spot was here,
And praise the lawns, so fresh and green,
Between the hills so sheer.
I like it not—I would the plain
Lay in its tall old groves again.

The sheep are on the slopes around,
The cattle in the meadows feed,
And labourers turn the crumbling ground,
Or drop the yellow seed,
And prancing steeds, in trappings gay,
Whirl the bright chariot o'er the way.

Methinks it were a nobler sight
To see these vales in woods arrayed,
Their summits in the golden light,
Their trunks in grateful shade,
And herds of deer, that bounding go
O'er rills and prostrate trees below.

And then to mark the lord of all,
The forest hero trained to wars,
Quivered and plumed, and lithe and tall,
And seamed with glorious scars,
Walk forth, amid his reign, to dare
The wolf, and grapple with the bear.

This bank, in which the dead were laid,
Was sacred when its soil was ours ;
Hither the artless Indian maid
Brought wreaths of beads and flowers,
And the grey chief and gifted seer
Worshipped the god of thunders here.

But now the wheat is green and high
On clods that hid the warrior's breast,
And scattered in the furrows lie
The weapons of his rest,
And there, in the loose sand, is thrown
Of his large arm the mouldering bone.

Ah, little thought the strong and brave,
Who bore the lifeless chieftain forth ;
Or the young wife, that weeping gave
Her first-born to the earth,
That the pale race, who waste us now,
Among their bones should guide the plough.

They waste us—ay—like April snow
In the warm noon, we shrink away ;
And fast they follow, as we go
Towards the setting day—
Till they shall fill the land, and we
Are driven into the western sea.

But I behold a fearful sign,
To which the white men's eyes are blind ;
Their race may vanish hence, like mine,
And leave no trace behind,
Save ruins o'er the region spread,
And the white stones above the dead.

Before these fields were shorn and tilled,
Full to the brim our rivers flowed ;
The melody of waters filled
The fresh and boundless wood ;
And torrents dashed, and rivulets played,
And fountains spouted in the shade.

Those grateful sounds are heard no more,
The springs are silent in the sun,
The rivers by the blackened shore,
With lessening current run ;
The realm our tribes are crushed to get
May be a barren desert yet.

* THE FLIGHT OF YOUTH

Nothing that the American poet, R. H. Stoddard, has written is more certain of remembrance than these beautiful lines from his pen. There is a glorious sense of life that comes to us all in our youth and makes us feel that life is immortal. As age creeps on this feeling wears away, and that is why the wise men say “If Youth but knew!” meaning that if youth had also the wisdom of age nothing would seem, and little would be, impossible.

There are gains for all our losses,
There are balms for all our pains ;
But when youth, the dream, departs,
It takes something from our hearts,
And it never comes again.

We are stronger, and are better,
Under manhood's sterner reign ;
Still, we feel that something sweet
Followed youth, with flying feet,
And will never come again.

Something beautiful is vanished,
And we sigh for it in vain ;
We behold it everywhere,
On the earth, and in the air,
But it never comes again.

QUIET WORK

These verses, by Matthew Arnold, take the form of a sonnet, or a little poem of fourteen lines, in which the reader will notice that the last six lines are not merely a continuation of the first eight, but they also contain a change of thought, which is proper to this form of verse.

One lesson, Nature, let me learn of thee,
One lesson which in every wind is blown ;
One lesson of two duties kept at one
Though the loud world proclaim their enmity

Of toil unsevered from tranquillity !
Of labour, that in lasting fruit outgrows
Far noiser schemes, accomplished in repose,
Too great for haste, too high for rivalry !

Yes, while on earth a thousand discords ring,
Man's fitful uproar mingling with his toil,
Still do thy sleepless ministers move on,

Their glorious tasks in silence perfecting ;
Still working, blaming still our vain turmoil,
Labourers that shall not fail, when man is gone.

* From “ Poems of Richard Henry Stoddard,” copyright, 1880, by Charles Scribner's Sons.

IT IS COMMON

The anonymous American poet who has written these lines expresses a thought that has often arisen in the poems we have read: that the best things of this life are really the commonest, if we could only be persuaded of this. The word "fall" in the first line of the fourth verse is oftener used in America than elsewhere as another name for autumn—the time when the falling leaves cover the woodland.

So are the stars and the arching skies,
So are the smiles in the children's eyes;
Common the life-giving breath of the spring;
So are the songs which the wild birds sing—
Blessed be God, they are common!

Common the grass in its glowing green;
So is the water's glistening sheen;
Common the springs of love and mirth;
So are the holiest gifts of earth.

Common the fragrance of rosy June;
So is the generous harvest moon,
So are the towering, mighty hills,
So are the twittering, trickling rills.

Common the beautiful tints of the fall;
So is the sun which is over all.
Common the rain with its pattering feet;
So is the bread which we daily eat—
Blessed be God, it is common!

So is the sea in its wild unrest,
Kissing for ever the earth's brown breast;
So is the voice of undying prayer,
Evermore piercing the ambient air.

So unto all are the "promises" given,
So unto all is the hope of heaven;
Common the rest from the weary strife,
So is the life which is after life—
Blessed be God, it is common!

ALL THE CHILDREN

These merry verses bear no author's name, but are possibly of American origin. Whoever wrote them had a happy touch of humour and must have loved the little ones, if we may judge by the pretty things he, or she, says about them.

I suppose if all the children
Who have lived through the ages long
Were collected and inspected,
They would make a wondrous throng.
Oh, the babble of the Babel!
Oh, the flutter and the fuss!
To begin with Cain and Abel,
And to finish up with us.

Think of all the men and women
Who are now and who have been—
Every nation since creation
That this world of ours has seen,
And of all of them, not any
But was once a baby small;
While of children, oh, how many
Have not grown up at all!

Some have never laughed or spoken,
Never used their rosy feet;
Some have even flown to heaven
Ere they knew that earth was sweet;
And, indeed, I wonder whether,
If we reckon every birth,
And bring such a flock together,
There is room for them on earth.

Who will wash their smiling faces?
Who their saucy ears will box?
Who will dress them and caress them?
Who will darn their little socks?
Where are arms enough to hold them?
Hands to pat each shining head?
Who will praise them? Who will scold them?
Who will pack them off to bed?

Little happy Christian children,
Little savage children too,
In all stages, of all ages
That our planet ever knew;
Little princes and princesses,
Little beggars, wan and faint,
Some in very handsome dresses,
Naked some, bedaubed with paint.

Only think of the confusion
Such a motley crowd would make,
And the clatter of their chatter
And the things that they would break!
Oh, the babble of the Babel!
Oh, the flutter and the fuss!
To begin with Cain and Abel,
And to finish up with us.

A STORY OF LIFE

Jean Ingelow, the English poetess who wrote the famous ballad "High Tide on the Coast of Lincolnshire," was the author of this plaintive little summary of a human life.

Sweet is childhood; childhood's over,
Kiss and part.
Sweet is youth; but youth's a rover—
So's my heart.
Sweet is rest; but all by showing
Toil is nigh.
We must go. Alas! the going,
Say, "Good-bye."

A VISION OF THE FUTURE

The following is a short extract from Tennyson's famous poem of "Locksley Hall," and is quoted here as appropriate to these days of ours, when the wonder-ships that can sail the skies have actually come to pass. Perhaps the day may not be so very far distant when those greater wonders of the poet's imagination may yet be realised.

For I dipt into the future, far as human eye could see,
Saw the Vision of the world, and all the wonder that would be;

Saw the heavens fill with commerce, argosies of magic sails,
Pilots of the purple twilight, dropping down with costly bales;

Heard the heavens fill with shouting, and there rained a ghastly dew
From the nation's airy navies grappling in the central blue;

Far along the world-wide whisper of the south wind rushing warm,
With the standards of the people plunging thro' the thunder-storm;

Till the war-drum throbbed no longer, and the battle-flags were furled
In the Parliament of man, the Federation of the world.

There the common-sense of most shall hold a fretful realm in awe,
And the kindly earth shall slumber, lapt in universal law.

GENTLE JESUS, MEEK AND MILD

This tiny hymn for little children was written by Charles Wesley about the year 1740, and is the only one of his children's hymns still sung in our churches to-day. It has been said that he wrote it for his own children; but this cannot be correct, as he did not marry until long afterwards.

Gentle Jesus, meek and mild,
Look upon this little child;
Pity my simplicity,
Suffer me to come to Thee.

Fain I would to Thee be brought,
Gracious God, forbid it not;
In the kingdom of Thy grace
Grant Thy little child a place.

THE APPLE WINDS

These charming verses, by Mr. Will H. Ogilvie, convey a lesson worth remembering, for in our care-free days of youth we are apt to welcome the winds that blow us good without thought of those to whom they may blow ill. The verses are printed with Mr. Ogilvie's permission.

I HAD no thought of stormy sky
In days when I was small,
And all the world was bounded by
Our ten-foot garden wall.
I never thought the storm-winds came
From wrecks and ribboned sails;
I never knew them by their name
Of equinoctial gales;
But sweeping round the orchard bends,
Knee-deep in leaves of brown,
I only knew them as the friends
That shook the apples down!

And I have travelled far and far
And weary miles since then,
And battled where the storm-winds are
That wreck the lives of men;
And back among the lime-tree leaves,
Grown gold before they fall,
I hear the song that autumn weaves
When first the wild winds call;
And though their hand is chill and cold,
Their face has winter's frown,
I know them for the friends of old
That shook the apples down!

I THINK WHEN I READ

Few children's hymns are better known or more often heard in Sunday schools than this beautiful hymn by Mrs. Luke.

I THINK when I read that sweet story of old,
When Jesus was here among men,
How He called little children as lambs to His fold—
I should like to have been with Him then.
I wish that His hands had been placed on my head,
That His arm had been thrown around me,
And that I might have seen His kind look when he said:
"Let the little ones come unto Me."
Yet still to His footstool in prayer I may go,
And ask for a share in His love;
And if I thus earnestly seek Him below,
I shall see Him and hear Him above,
In that beautiful place He has gone to prepare
For all that are washed and forgiven;
And many dear children are gathering there,
"For of such is the kingdom of heaven."

SAD VENTURES

This poetic fancy, which appeared in an American newspaper, tells very prettily the triumph of faith; for without faith in the goodness and mercy of God, many other virtues will not help us greatly. That, at least, is the message of this little poem picked from the pages of a newspaper.

I STOOD and watched my ships go out,
Each, one by one, unmooring, free,
What time the quiet harbour filled
With flood-tide from the sea.

The first that sailed, her name was Joy;
She spread a smooth, white, shining sail,
And eastward drove with bending spars
Before the sighing gale.

Another sailed, her name was Hope;
No cargo in her hold she bore;
Thinking to find in western lands
Of merchandise a store.

The next that sailed, her name was Love;
She showed a red flag at her mast—
A flag as red as blood she showed,
And she sped south right fast.

The last that sailed, her name was Faith;
Slowly she took her passage forth,
Tacked and lay to; at last she steered
A straight course for the north.

My gallant ships, they sailed away
Over the shimmering summer sea;
I stood at watch for many a day—
But one came back to me.

For Joy was caught by pirate Pain;
Hope ran upon a hidden reef,
And Love took fire and foundered fast
In whelming seas of grief.

Faith came at last, storm-beat and torn—
She recompensed me all my loss;
For, as a cargo safe, she brought
A crown linked to a cross.

LIFE

Mrs. Barbauld, a well-known writer in her day, was the author of these thoughtful lines, in which there is the quiet beauty of a contented and hopeful spirit.

LIFE! I know not what thou art,
But know that thou and I must part;
And when, or how, or where we met
I own to me's a secret yet.

Life! We have been long together,
Through pleasant and through cloudy weather.
'Tis hard to part where friends are dear,
Perhaps 'twill cost a sigh, a tear.
Then steal away, give little warning;
Choose thine own time;
Say not Good-night, but in some brighter clime
Bid me Good-morning.

GOD SAVE THE KING

England's anthem is not poetry; indeed, it is a pity that children should learn it and come to look upon it as a poem. It is the merest doggerel. The second verse, also, is almost blasphemy and quite unworthy of a great nation. Many attempts have been made to improve it, and we give here a new second verse that is sometimes sung by those who refuse to sing the vulgar second verse of the original, which is not worthy of being reprinted in The Children's Encyclopædia. We give the first and third verses, followed by the suggested second verse. The anthem has probably grown from an old rebel song, and is believed to have been set to music, oddly enough, by John Bull, a musician and poet, who was organist to King James I., and who died in 1628.

GOD save our gracious King,
Long live our noble King,
God save the King!
Send him victorious,
Happy and glorious,
Long to reign over us,
God save the King!

Thy choicest gifts in store
On him be pleased to pour,
Long may he reign.
May he defend our laws,
And ever give us cause,
To sing with heart and voice,
God save the King!

SUGGESTED SECOND VERSE BY LORD NORTON

O God, our cry for peace,
And prayer that war may cease,
Do Thou, Lord, hear!
Then shall we Thee adore,
And praise Thee evermore,
Singing with heart and voice,
God save the King!

LITTLE VERSES FOR VERY LITTLE PEOPLE

There was a frog lived in a well,
Kitty alone, Kitty alone;
There was a frog lived in a well,
Kitty alone and I.

There was a frog lived in a well,
And a gay mouse in a mill.
Cock me cary, Kitty alone,
Kitty alone and I.

The frog he would a-wooing ride;
Kitty alone, Kitty alone;
The frog he would a-wooing ride,
And on a snail he got astride.
Cock me cary, Kitty alone.

He rode till he came to My Lady Mouse Hall,
Kitty alone, Kitty alone;
He rode till he came to My Lady Mouse Hall,
And there he did both knock and call.
Cock me cary, Kitty alone.

Quoth he, " Miss Mouse, I'm come to thee,"
Kitty alone, Kitty alone;
Quoth he, " Miss Mouse, I'm come to thee,
To see if thou canst fancy me."
Cock me cary, Kitty alone.

Quoth she, " Answer I'll give you none,"
Kitty alone, Kitty alone;
Quoth she, " Answer I'll give you none,
Until my Uncle Rat comes home."
Cock me cary, Kitty alone.

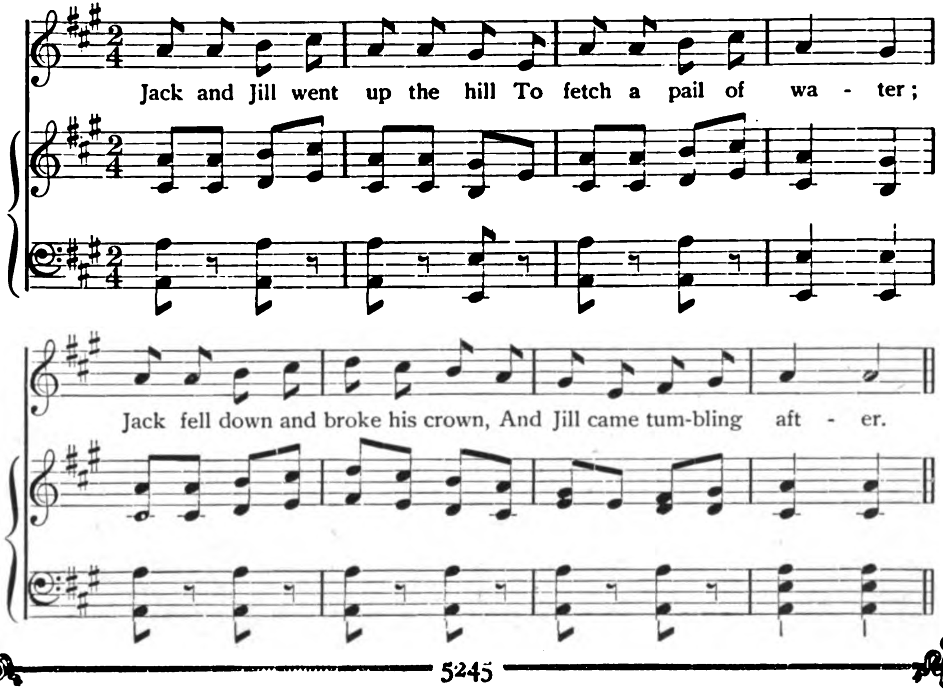
And when her Uncle Rat came home,
Kitty alone, Kitty alone;
And when her Uncle Rat came home,
" Who's been here since I've been gone ? "
Cock me cary, Kitty alone.

" Sir, there's been a worthy gentleman,"
Kitty alone, Kitty alone;
" Sir, there's been a worthy gentleman,
That's been here since you've been gone."
Cock me cary, Kitty alone.

The frog he came whistling through the brook,
Kitty alone, Kitty alone ;
The frog he came whistling through the brook,
And there he met with a dainty duck.
Cock me cary, Kitty alone.

This duck she swallowed him up with a cluck,
Kitty alone, Kitty alone;
This duck she swallowed him up with a cluck,
So there's an end of my history book.
Cock me cary, Kitty alone,
Kitty alone and I.

JACK AND JILL

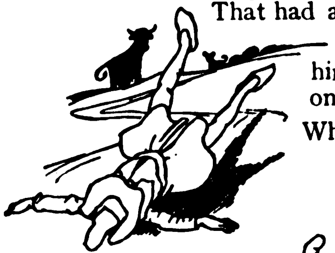

Jack and Jill went up the hill To fetch a pail of wa - ter;
Jack fell down and broke his crown, And Jill came tum-bling aft - er.

SIMPLE SIMON MET A PIEMAN

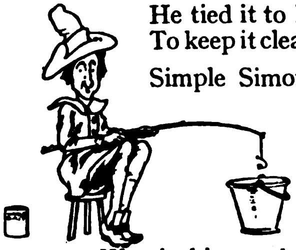
Simple Simon met a pieman
Going to the fair;

Says Simple Simon to the pieman:
"Let me taste your ware."
Says the pieman unto Simon:
"First give me your penny!"
Says Simple Simon to the pieman:
"Indeed, I have not any."

He went to catch a dicky bird,
And thought he would not fail,
Because he had a little salt
To put upon his tail.
He went to ride a spotted cow
That had a little calf;
She threw him down upon the ground,
Which made the people laugh.



Then Simple Simon went a-hunting
For to catch a hare;
He rode a goat about the street,
But could not find one there.
Simple Simon went to town
To buy a piece of meat;
He tied it to his horse's tail
To keep it clean and sweet.

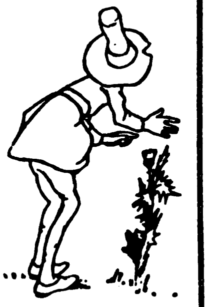


Simple Simon went a-fishing
For to catch a whale,
And all the water he had got
Was in his mother's pail.

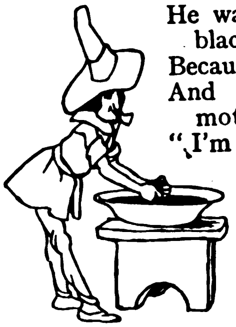
He went to take a bird's nest—
'Twas built upon a bough;
A branch gave way, and Simon fell
Into a dirty slough.
He went to shoot a wild duck,
But the wild duck flew away;
Says Simon: "I can't hit him
Because he will not stay."

Once Simon made a great snowball,
And brought it in to roast;
He laid it down upon the fire,
And soon the ball was lost.

He went to slide upon the ice,
Before the ice would bear;
Then he plunged in above his knees,
Which made poor Simon stare.



Simple Simon went to look
If plums grew on a thistle;
He pricked his finger very much,
Which made poor Simon whistle.



He washed himself with blacking ball,
Because he had no soap;
And then said to his mother:
"I'm a beauty now, I hope."

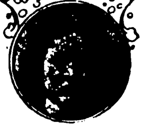
He went for water in a sieve,
But soon it all ran through.
And now poor Simple Simon
Bids you all adieu.

WHAT THIS BOOK OF WONDER TELLS US

IN this part of the Book of Wonder the Wise Man has told us a very curious thing, — that nothing ever really comes to an end. It seems to us when we see the wood burn up and the water boil away that this cannot be true, and yet we learn that though the form and shape of everything may change, it can never really end, for the water becomes steam and the wood turns to ashes. There are so many things that puzzle us, and we wonder what it is that makes a rocket go up into the sky; why some waters petrify wood; why a lamp gives a better light with the chimney on than off; why the grass turns yellow when it is made into hay. All these troublesome questions the Wise Man answers for us and many more beside. He tells us what it is that makes the Aurora Borealis, why this wonderful light only appears in the northland, and why it is that people are so very silly as to believe in what the gypsy fortune-teller says.

MUST ALL THINGS END?

CONTINUED FROM 5170



ALL things do not end. We can think in a moment of a hundred things that end—such as, say, a piece of string, a stick, a fire that dies out, a river, or a race. These have one sort of ending that we can see with our eyes. We can think in a moment of a hundred things that end *for us*—such as, for example, a storm, which comes to an end as far as we are concerned, though we cannot say that the rain really ends, because the storm may have gone somewhere else. Or we may be watching a ship pass at sea, and the beautiful sight may come to an end because the ship passes from our view; but the vision is ended only for us, because, of course, others may watch the ship from beyond where we happen to be.

There are other things which we may allow to end or not, as the case may be, because we can control them. There are many cruel things in the world which men might bring to an end if they would, such as bullfighting in Spain, or the cruel treatment of children by drunken parents in America. Men could stop these things if they would, as they can stop the ticking of a watch.

A clock has just been made which is expected to run for ten thousand years, so that we might think that that clock, at any rate, has no end. We may be sure, however, that the stuff of which the clock is made will crumble away in less than ten thousand years, and that brings us to what this question really means. We know that nothing can be utterly destroyed, and so we know, therefore, that nothing can be utterly ended. *But the form and shape of everything may end.* The stuff of which the clock is made may crumble; but though it is no more a clock, it is still stuff of another kind which we may call dust. And no doubt it might change, in millions and millions of years, through the action of natural forces that are always at work, into stuff of which another clock might be made. And so, of course, if a clock can end as a clock, the wall on which it hangs may end as a wall; the house which the wall supports may cease to be a house; the street in which the house stands may cease to be a street; the town through which the street runs may cease to be a town; and the very earth itself may cease to be *as we know it now*.

But, although man has not yet learned all that he has to learn, everything that man knows tells us in the plainest possible words that the earth can never be destroyed, however much its form may change. We speak of a thing wearing away; but nothing really wears away: its form changes, that is all.

So that what comes to an end is not a thing itself, but the form of a thing. The desire for excitement will not end in Spain, but the day will come when it will be satisfied by something nobler than bull-fighting.

This book may end, in the form in which we hold it in our hands; but the thoughts this book has put into our minds, the feelings that have grown, perhaps, in our hearts as we have read it, will remain and influence our lives. Of one thing let us be sure for ever—that goodness never ends, that all this beautiful world, this wonderful life of ours, was not created by God to exist for a few years and then to die. The changes of Nature are sometimes more than we can understand, and the last change that we know, the sleep that we call death, is the strangest of all. But it is a sleep, and not an end.

WHY IS FOOD DEARER AT SOME TIMES THAN AT OTHERS?

Food is of many different kinds, and some foods are affected by the season of the year; so, of course, we should expect to find that certain fruits and vegetables are dearer at some periods than at others, for sometimes they are in season, and are so abundant that they can be sold for little more than the cost of picking and carrying them, and at other times they have to be forced under glass, or brought long distances from warmer regions.

But other kinds of food often vary in their price, and if we wanted to know all the reasons of this, we should really have to study the question of cost and price, which is a very big matter. We can understand that supposing, for instance, Australia starts sending larger numbers of rabbits prepared for eating, or New Zealand starts sending greater quantities of mutton than usual to any country, the price of meat will fall because there is a greater supply of it, and the people who provide these things at home will have to lower their prices.

IS THERE A REASON FOR EVERYTHING?

It is indeed the first of facts that there is a reason for everything—for the existence of everything, and for everything that ever happens in the world. This has long been seen to be true of certain things, like the movements of water, the facts of chemistry, and even of plants. But it was long supposed that things were different in the outside world from what they were in the inside world, and men did not believe that there were causes for all their thoughts and deeds, as well as for the falling of a raindrop. We are apt to be foolish in these matters, for we admit the cause of a thing when we see it; but when we do not see it we are apt to deny that a cause was there at all. The special word for causing is *causation*, and the first and greatest belief of science is that causation is universal, without any exception either in place or in time, either in the conduct of the weather or in the conduct of men. We are apt to take this for granted nowadays, as if it did not need saying, but it has taken all the thought and study of all past ages to prove, and the great majority of people, even to-day, do not realise that everything has a cause, and that consequences are endless. Every effect is the cause of further effects, and every cause or reason of things has its own cause or reason behind it. And so, if we think, we shall soon see that we must go back to the First Cause and All-Reason, the Cause of causes, whom men have come to call God.

HOW IS THE AREA OF A COUNTRY MEASURED?

The difficulty in measuring the area of a country depends entirely on the shape of it. There is never any difficulty in measuring the area of a thing so long as it is a rectangle in shape. *Rect* is simply the Latin form of right, and a rectangle is a thing the angles of which are right angles. The simplest kind of rectangle is, of course, a square; but two opposite sides of a figure may be very much longer than the other two, and yet we still have a rectangle, if all the four angles are still right angles. These pages are rectangles, though they are not squares.

Now, nothing can very well be easier than to measure the area of this page or of a country which, like this page, is rectangular. If the rectangle be a square, we measure the length of one side and multiply the figure representing the number of miles by itself, and we have the area of the square in square miles. In the case of this page or any rectangle that is not a square, we multiply the length of one side by the length of a side next to it, and, if we are measuring in inches, that gives us the area in square inches. Of course, most countries are not rectangular, and the more irregular their shape, the more difficult will it be to measure their area. The principle at work is that which we have described, but its application will often require a great deal of intricate working out.

WHAT IS POSITIVISM?

Positivism is the name of a kind of new religion invented by a remarkable Frenchman called Auguste Comte, who was born in 1798, and died in 1857. Comte believed that the only kind of real knowledge we have is simply our knowledge of things around us. He believed that men's thoughts showed three stages. In the first, they believed in gods or in God; in the second, they believed in all sorts of abstract words; and then there was the third stage, which he called the positive stage, where men confined themselves to things about which they could have positive knowledge.

His religion included a great deal of regulation of human society, and very careful education of the young. It is often called the " religion of humanity," because Comte believed that men should worship humanity, the Great Being of which they are a part; and he invented a new calendar commemorating the names of great men of the past.

Positivism contains many beautiful and noble elements, but not in one case out of millions does it satisfy human nature; and so, though positivists still exist in various parts of the world, they are extremely few in number, and the expectations of Comte have been quite falsified. Comte was, however, a great and genuine student of society, and he discovered various important truths about mankind, and said so many wise and deep things that his name cannot be forgotten, even though the religion he invented is certainly a failure.

WHAT MAKES A ROCKET GO UP INTO THE SKY?

A rocket is made to go up into the sky by means of an explosion, just as a bullet is fired from a gun. All explosions are of the same kind; they are due to a certain amount of gas, which has been squeezed, forcing its way out so that it can occupy more space. If we allow it to force its way out only through a certain route, and if we put a bullet or a cork or a rocket in its way there, it will drive these things out, and may send them to a distance of miles.

Sometimes the gas that does the work already exists, and is first squeezed, and then allowed to spread itself out again. That is the case with a pop-gun or an air-gun. But when we fire an ordinary gun, or when we send a rocket up into the air, the gas which does the work is made on the spot.

In some way or other we cause the burning, or combustion, either of gunpowder or of something like it, within a very tiny space. The burning produces a quantity of gas which is all the more liable to expand because it is very hot, and which, so to speak, wishes to occupy many hundreds or thousands of times more space than the stuff from which it was made. Of course, we must be sure that it will only travel out in one direction, for otherwise the gun or rocket will burst.

CAN WE BREAK OUR HABITS?

Of course we can. But we must know what we mean when we speak of habits. In some ways breathing and eating might be called habits, and we know that we cannot break them, for they really depend upon the very structure and needs of our bodies. But real habits are all things learnt, and are not essential, and as they can be learnt they can be unlearnt; we can learn the new habit of *not* doing the thing we were in the habit of doing. Almost any ordinary habit can be learnt or unlearnt in about six weeks.

There are certain special habits, in some ways different from the others, which consist in using certain drugs, such as alcohol, tobacco, opium, and many others. These habits differ because they do not consist merely in the brain learning to do a thing over and over again. These drugs leave behind them in the body poisons which injure it and make us uncomfortable, and then the easiest way in which we can feel better is by taking more of the thing we began with. But these habits also can be completely broken. People always profess great astonishment when " the habits of a lifetime," as they say, are changed; but, as a matter of fact, this happens every day, and is true in some respect or other of almost everybody.

WHY CAN SOME WATERS PETRIFY WOOD?

The word petrify comes from a Greek word which means a rock, and that is also the meaning of the name Peter. If water petrifies wood, it must contain in itself something of the nature of stone or rock; and, in fact, stony material is actually laid down and left on the wood, which is therefore turned into something like stone or rock. The woody material itself may altogether disappear, but the tiny particles of stone are laid down just as the wood was. The water that can do this must be water containing various kinds of mineral matter dissolved in it in the form of salts. These salts may be of such a kind that when they are exposed to the air they change, and instead of remaining dissolved in water they become undissolved and turn solid, and are left behind.

The best example of such a salt is carbonate of lime, the common chalk that we all know so well. Chalk will not melt in water, but though carbonate of lime is insoluble in water, another salt, which is almost the same and is called bicarbonate of lime, melts in water quite readily. Now, if water with bicarbonate of lime dissolved in it runs over any surface exposed to the air, the bicarbonate is changed, because the extra quantity of carbonic acid from which it gets its name passes off into the air, and the salt left behind is carbonate of lime, or chalk, which is insoluble in water; and so this mineral matter is left behind, and will take any shape, according to the object upon which it is deposited.

WHY DOES A LAMP GIVE A BETTER LIGHT WITH THE CHIMNEY ON THAN OFF?

There are two good reasons for this, and at first they will sound, perhaps, as if they contradict each other. One reason is that the chimney protects the flame from draughts, and the other is that it makes such a good draught for the flame. We know, of course, how the flame of a match waxes and wanes, flickers, and then brightens up again, because of the draughts to which it is subjected. But if there are no draughts, it will burn more steadily. That is true of the candle-flame also; and that is one use of the lamp-chimney. But the most important use of the chimney is that it helps to carry away the burnt gases from the flame, which means that it makes a draught for fresh air to come in below and feed the flame. That is the great reason why the flame brightens up so much, and smokes so much less, when the chimney is put on. The reason why the flame smokes at first is that the oil is only being half burnt; the carbon in it is not being burnt at all, and forms the black specks that we see. But when the chimney is put on, the flame is much better fed with air, so that the burning goes on much more completely, and the carbon as well as the hydrogen in the oil is burnt up; most of the blacks disappear, and the flame burns brightly.

WHY DOES GRASS TURN YELLOW AFTER BEING MADE INTO HAY?

If there were no microbes in the world this would not happen; but nearly all the changes that happen in the bodies of living things after they die are due to microbes. This is as true of fish that turns bad as it is of grass that turns yellow when it is made into hay. Perhaps we are apt to forget that grass is part of the body of a living thing, but so it certainly is. It consists of those parts of certain plants which are called their leaves.

These leaves, like all other leaves, have the special duty of feeding on the carbonic acid of the air by the aid of sunlight, and for this purpose they contain a very wonderful chemical substance called *chlorophyll*, the colour of which is green. Like all other chemical compounds which are very complicated, chlorophyll is very easily broken up and changed into something else. On the other hand, most simple compounds, like water, are very stable.

When the leaves of grass die by being cut, the very first compound that suffers from the change is this delicate and unstable chlorophyll. It is broken up into compounds, some of which have a yellow colour. We see the same thing in the leaves of a tree in autumn, which the tree has deliberately killed by corking up the channels through which they got their food. The agents at work in all these cases are microbes, the sun, and the air, and water.

WHY HAS NOT SMOKE A FORCE LIKE STEAM?

The proper way to find out the answer to a question like this is first to discover why steam has force. When we do this we shall probably find that the fact about steam to which it owes its force is not true of smoke. Now, steam is a word which we use in rather different senses; sometimes we use the word steam for the cloud that comes from a kettle, but every engineer knows that that kind of steam is not of much use in his engines—in fact, it has no more force than smoke has.

The steam that *does* work and has force is water-vapour confined in a small space and pressing in all directions outwards so as to get more room for itself. It desires to expand, and it is this force of expansion that makes it so useful. When it has got out in the air, and has taken as much room as it pleases, it has no more force. The force is not in the cloud of steam outside the kettle, but in the steam inside that raises the kettle-lid.

Smoke, on the other hand, has no force, because it has no tendency to expand. Smoke is, indeed, not a gas at all, but only a quantity of small pieces of solid matter which, not being very heavy, can be carried in a stream by the gases escaping from a chimney. These gases might have some force if they were confined in a small space, but once we understand where steam gets its force, we shall see that there is no reason why smoke should have any force.

CAN PEOPLE READ OUR THOUGHTS?

There are, of course, ways of guessing people's thoughts about which we all know something. Some people's thoughts are more easily guessed than others because their faces show more readily the kind of feelings that they are having; and if we can read their feelings, we can often guess the thoughts that arouse those feelings. People also vary much in their power of reading other people's faces, and so guessing their thoughts; and there is little doubt that, on the whole, women are a good deal cleverer at this than men. Of course, something depends on how well we are acquainted with the face we are looking at.

All this is quite different from real thought-reading, which would be the power of knowing what words were actually passing through a person's mind, just as if we were reading those words written upon his face. People often give exhibitions in public, and declare that they can read each other's thoughts; but in all such cases we know that, somehow or other, the person whose thoughts are supposed to be read communicates with the thought-reader. This may be done so quickly and cleverly as to be well worth seeing, especially as it is often quite impossible for us to guess how the trick is done; but it is not thought-reading. Some people believe that genuine thought-reading really exists, but certainly this has not yet been proved.

CAN PEOPLE TELL OUR FORTUNES?

There is a way in which people can tell our fortunes, and there is another way in which they cannot. No one can be certain of the future, but if we find that a man is strong, and brave, and true, and persevering, we know that certain things are very likely to be done by him. If we find that he eats and drinks too much, is lazy, and cowardly, and cruel, we can, in a sense, predict his fortune also. People who pretend to tell fortunes manage to get a certain amount of success because chance makes them right in a certain number of cases, and also because they study, as carefully as they can, the character of the people who come to them, and they judge by that. They know the tremendous truth that a man's character is his destiny; and so, if they can tell his character, they can tell his fortune.

But they cannot by any means tell a single one of the things for which foolish people go to them. They may sometimes appear to succeed, as when they tell a man who is going to drive a motor-car that at a certain corner he will be killed, because when he comes to that corner he remembers, and fears, and loses control of his car; and there are many cases on record where predictions have come true in this way, but that only proves how very silly indeed people are to go to fortune-tellers at all.

WHAT IS THE AURORA BOREALIS?

For many years past people have inquired as to the cause of the wonderful brilliance called the Northern Lights, or *aurora borealis*, sometimes seen in the north by people in some parts of our land, and still more by those who live farther north than we do. In seeking to find out what causes it, we must first begin by studying the light of the aurora borealis, and we must do this by means of spectrum analysis. When that is done, we find that the light must have come from atoms of certain elements which form part of the air. These elements have only been known for a few years, and most of them were discovered by Sir William Ramsay. They mostly exist in the upper layers of air.

If we take a collection of these gases, and run some electricity through them, we find that they glow with certain beautiful colours which, indeed, make a very good imitation of the aurora borealis on a small scale. We are therefore inclined to believe that the aurora borealis must be due to electricity somehow exciting these gases as they exist in the upper layers of the air, and causing them to produce this glow.

WHERE DOES THE ELECTRICITY OF THE AURORA BOREALIS COME FROM?

We have lately learnt that all hot things give off tiny pieces of atoms, which are now called electrons, and which have powerful electrical properties. This is conspicuously true of the element carbon when it is made hot. Now, the sun is hot, and its outer part contains enormous quantities of carbon; so we may suppose that the aurora borealis is due to electrons from the sun striking the rare gases in the outer part of our atmosphere. But we cannot at all prove our theory unless we call in the help of certain other knowledge which we acquire in this book.

To begin with, how could the electrons get away from the sun? The sun's gravitation would tend to keep them, and if we are to believe that they are shot out from the sun, we must find something which will shoot them. Here our discovery of light pressure, or radiation pressure, comes to our aid. Without our knowledge of it we should have no right to say that electrons could leave the sun at all.

We cannot suppose that at all times electrons are being hurled in any quantity from the sun, and, indeed, we do not find that the aurora borealis is going on at all times. It is only sometimes, when things happen in the sun, and especially when there are many big sun-spots, that we find splendid auroras and also great disturbance of the magnetic needles on the earth. It has long been known that auroras and sun-spots go together. Now we understand the reason. It is when something or other happens in the sun which makes the sun blaze up and increases the light pressure that electrons can be thrown from the sun in all directions; and some of them, after travelling ninety-three millions of miles at the rate of twenty miles a second, reach the earth.

WHY DO THE NORTHERN LIGHTS APPEAR IN THE NORTH?

When the electrons from the sun approach the earth, it seems as if they are conducted along certain lines, instead of just striking it fair and square. We must remember that the earth is a magnet. Now, if we take an ordinary bar magnet and a lot of iron filings, we find that in the space around the magnet there is what is called a magnetic field, and filings or any such things coming within this field will behave in a certain way. They will run towards the two poles of the magnet, and will arrange themselves between those poles in certain regularly curved lines, which are called the lines of force of the magnet, or the magnetic field.

Now, our study of Nature teaches us nothing more certainly than that size, as such, is of no importance. A magnet is a magnet whether it be a bar of iron an inch long or whether it be the earth on which we live; and what is true of one magnet is true of another. Therefore the magnet called the earth must and does behave towards the electrons coming within its field of force just as a child's small magnet will affect the iron filings coming within its field of force.

So we find that when the electrons approach the earth, they are carried towards the Poles of the earth, and those which travel through the outer air towards the North Pole, or, rather, towards the North Magnetic Pole, cause what we call the Northern Lights.

Thus we have an explanation, long sought for, of one of the most beautiful facts in Nature, and the special interest of the explanation is not only that it is new, but that it depends upon putting together our newly-gained knowledge of light and electricity and magnetism. No wonder, when none of these things were known, that men could not explain the cause of the aurora borealis.

The Child's Story of THE EARTH

WHAT THIS STORY TELLS US

WE read in this story something of the mysterious powers of electricity and magnetism, two of the great secrets of Nature that man has yet to solve. But although man at present understands little of these things, he has learnt to use them in a thousand ways, of which there is no room to speak in these pages. Our business here is to learn the ways and the laws of Nature. There would be material for endless reading and writing if we were to follow up this Story of the Earth with an account of how men have applied the ways and laws of Nature. The electric bell, the various kinds of electric light, the telegraph, and the telephone, with and without wires, the machines which combine the properties of electricity and magnetism, turning motion into electricity or electricity into motion—all these are developments within the last two generations, or less, of what was learnt by the early workers in electricity, notably in our own country. Here we can study only the little that is known of the laws of these two forces.

NATURE'S GREAT MYSTERIES

THE MARVELS OF ELECTRICITY AND MAGNETISM

CONTINUED FROM 5178

THE Greek name for amber is *electron*, and it was found long ago that if a piece of amber is rubbed, it will attract light things to it; and this state of the electron, or amber, was called electricity. As it was produced by rubbing, it was sometimes called frictional electricity. It was found that many other things behaved in the same way when they were rubbed, and these curious and amusing facts were studied with some interest. Much later, it was discovered that if we have certain mixtures of chemicals arranged in what is called an electric cell, something will run along a wire, and this something is called an electric current.

This branch of electricity, also, has been very carefully studied, because the current that runs along the wire can be made to do things; it can be made to ring bells when required; part of the wire can be made to glow and give light; or the power of the current can be turned into motion and used to drive trams or trains.

The current need not necessarily be made by electric cells or batteries, but however it is made it can be turned to various purposes. We can send messages by means of such currents running along wires, or we can speak by means of them. Quite lately we have learnt that the wires are not necessary, that messages can be sent without them; and, later still, that it is possible to speak without them, so that we have wireless telephony as well as wireless telegraphy. There is another subject, called magnetism, which began in a simple way, just as electricity did. Certain kinds of iron will attract iron or steel; a piece of iron that does this may be called magnetic, or a magnet, and if a piece of iron is stroked by a magnet, it can be turned into a magnet too.

When we take a straight piece of iron and magnetise it, we may call it a magnetic needle, and if this be hung or balanced in some way so that it is free, we find that one end of it always turns more or less toward the North Pole of the earth, and the other end toward the South Pole.

Whatever this means, it is very convenient and useful, because here is something—the magnetic compass—which men may carry about with them anywhere, and which will always show them the direction of the north, even when the stars cannot be seen. Just as our knowledge of amber led us on to far greater things, so our knowledge of a simple horse-shoe magnet leads us on to wonderful facts. To begin with the case of a compass-needle, the only explanation of its behaviour is that the earth itself is a huge magnet, and one end of the needle points to one Pole of the earth, and the other to the other, just as iron filings will behave in relation to the poles of a little magnet that we may hold in our hands. It may be asked: How is the earth like a horse-shoe magnet? But we must not be confused by the shape of such a magnet. It is really a bar of iron, one end of which is like the North Pole of the earth, and the other like the South Pole, and it is only bent into the horse-shoe shape for convenience.

We find that the magnetism of the earth does not quite run along the direction of the line joining the North and South Poles. The North Magnetic Pole of the earth is, therefore, not at the North Pole, though it is not very far distant from it; and the South Magnetic Pole, though near the South Pole, is not actually there. The compass-needle, therefore, does not point to the North Pole, but to the North Magnetic Pole, which is not due north.

HOW THE MAGNETISM IN THE SUN CHANGES THE WEATHER ON THE EARTH

Now, though it is a great advance that magnetism should have grown from being a scientific curiosity to teaching us that the earth itself is a huge magnet, yet that is not all. Just as our knowledge of electricity grew until we learnt that it exists throughout the universe, so our knowledge of magnetism has grown until we learn that we have to study it in the sun as well as on the earth.

It has long been known that there is some connection between happenings in the sun and the state of the earth's weather. It has been known, also, that sun-spots have some connection with magnetic needles on the earth. Now, it has been discovered quite lately that sun-spots are due to magnetism at work in the sun. When the light coming from sun-spots is very carefully studied by spectrum analysis, of which we read on page 2716, it is found that there are certain features of it which teach us that it is under the influence of magnetism. This helps us to understand why sun-spots and the disturbance of the magnetic needles on the earth should have something to do with each other. Thus we begin to see how our ideas of magnetism are growing, and the very last discovery made about this subject is particularly interesting to us, because it depends upon what we have lately learnt about light and light pressure, and about the fact that the earth is a magnet. That is the discovery about the aurora borealis, of which we read on pages 3856 and 5251. Let us now see what other great things we are able to learn from the study of electricity and magnetism.

THE ELECTRIC CURRENT THAT IS MADE UP OF WAVES IN THE ETHER

We know that light consists of waves of the ether; we know also that similar waves exist, forming a great scale, so to speak, above and below that part of the light scale which we can see. We know, further, that all these waves are really a kind of electric current; that they all travel at the same speed and have the same laws. They travel in the ether. We must clearly understand that all electric currents travel in the ether. They are ether waves, and that is equally true whether they are running through the air without wires, or through the ordinary electric wires that we find so useful for directing these currents.

It is one of the penalties of the increase of knowledge that old names come to get new meanings, and then we are liable to be confused. This is true in the case of electricity. One meaning of it is currents or waves existing in the ether, and we cannot understand that too clearly. But the word has now come to have another meaning, depending upon entirely new discoveries, and we must not be confused by it. In this sense of the word, we may now talk quite properly of atoms of electricity, provided that we are not confused by the new meaning of atom and by the new meaning of electricity.

THE WONDERFUL DISCOVERY THAT ALL THINGS ARE MADE OF ELECTRICITY

The old meaning of atom, which is still employed, is applied to those minute particles well known to chemists, which make up, say, gold or carbon or oxygen. The new discovery is that these things are made up of something else, and the something else of which they are made up produces electricity, and has all the properties of electricity, and can therefore only be called electricity. Matter when thus studied melts away, therefore, into a kind of power.

The kinds of particles that make up atoms are called electrons, as we have already learnt. Their great feature is their immense electrical power; they carry electricity with them. All the electrons from all kinds of atoms are the same, and all the electrons carry the same quantity of electricity, no more and no less. All this is very important and wonderful, because it brings us down at last to something which is really the same everywhere, and out of which all the different kinds of matter are built. But something much more remarkable has yet to come.

THE ATOMS OF ELECTRICITY THAT MAKE THE SUN AND STARS AND ALL THINGS

We have said that these electrons carry a certain quantity of electricity. When we study their speed, their size, and their mass, and, indeed, all their properties, we make the staggering and magnificent discovery that, if we are to believe the evidence, all the properties of these electrons can be explained by the electricity which they carry. All their properties are electrical. We can account for everything by means of the electricity which we know is there. There is, therefore, no reason to suppose that anything else is there. These things are electricity—atoms of electricity, and nothing else; and the only conclusion to which we can come is that matter is made of electricity.

These atoms of electricity, as they are put together in certain ways, arranged into systems like a solar system or into star-clusters like the Pleiades, make the atoms and the molecules of the matter that we know so well; and there is no need to call in anything else. Electricity, therefore, began, as we saw, in the study of amber when it was rubbed, and thus it got its name; but it has now come to this, that matter itself is a simple kind of electricity, and nothing else.

THE TWO KINDS OF ELECTRICITY THAT ALWAYS ATTRACT EACH OTHER

It was long ago found that electricity showed itself sometimes in a way which led people to suppose that there were two opposite kinds of electricity, which they called positive and negative. In rather the same way, we find that anything which is magnetised is different at the two ends, or poles. Now, the two opposite kinds of electricity attract each other, but two things both charged with the same kind of electricity repel each other. In the same way, the north pole of a magnet attracts the south pole of another magnet; but similar magnetic poles repel each other, just like similar electricities. What we call the north pole of a compass-needle ought, therefore, to be called the north-seeking pole, for it must be opposite in kind to the North Magnetic Pole of the earth, toward which it turns.

These facts, long known about opposite kinds of electricity, have to be applied to our new discovery that matter is electrical. Similar electricities repel each other. The electrons that we have learnt about, which compose atoms and are shot out from atoms, are all charged with, or carry what, for the sake of a name, we call negative electricity. Almost certainly it would be truer to say that they *are* atoms of negative electricity. Then, according to the old law which has been known for hundreds of years, they should repel each other, and so they do.

THE MARVELS THAT MEN HAVE LEARNT FROM RUBBING A PIECE OF AMBER

But, if this is the case, how are we to explain the fact that particles of negative electricity can live together in friendship and order, so to speak, making up the atoms of matter? The answer must be that there is some positive electricity in the atom which attracts all the negative electrons and holds them together by its power. It makes us think of the atom rather as we think of the solar system, with the positive electricity compared to the sun, and the negative electricity compared to the particles of planets. That is as far as our knowledge goes at present, for we cannot say any more yet about the positive electricity of the atom.

It has been wonderful enough to start with the amusing behaviour of rubbed amber, and to end with a new theory of what matter really is—amber and air and stars and everything else. But even that does not tell us all the wonders of electricity, quite apart from its practical uses, which are not our concern here. For it is to electricity that we are now turning for the key to something else. If any student of the Story of the Earth were asked what is the greatest problem still unsolved, what is the greatest discovery that any man could now make, he would certainly answer, the secret of gravitation. Here is something acting throughout all the universe in a regular way according to fixed laws.

All that has been done during the many years that have passed since a young man in his early twenties, called Isaac Newton, discovered the law of universal gravitation has been simply to prove that the law is as constant as he asserted. The law as he stated it is truer than he could possibly prove at the time. No kind of screen affects the action of gravitation; temperature does not affect it, chemical changes do not affect it; so far as we can learn, nothing whatever does. We have simply proved that Newton's law is true, but during all this time we have completely failed to discover the cause of gravitation. We know no more *how* it acts than Newton did. All we can say is that it must act through and in the ether, and that we have more proof of the existence of the ether than Newton had.

WHY THE EARTH'S PULL IS BELIEVED TO BE CAUSED BY ELECTRICITY

There is no end to the theories of gravitation, but the best of them breaks down. The very interesting thing is that the wisest and deepest of living students are coming to be convinced that gravitation, like everything else, has its secret in electricity. It must be an electrical force acting through the ether. Of course we have no proof of this yet, but the more men learn about electricity and the ether, the more inclined are they to take this view; and the study of electricity will be bigger and more important than ever if, as the wisest suppose, universal gravitation itself is one day proved to be an electrical fact.

We shall better understand why men think as they do if we consider for a moment what is believed about the ether. The ether, or the ether of space, as it is sometimes called, was first recognised because the existence of something had to be admitted in order to carry light. No student of Nature can believe that things act from one place to another without there being something in between. There can be no action at a distance without something to convey that action. If anything at all passes from the sun to the earth, there must certainly be something between the sun and the earth; and that something is the light-bearing ether.

HOW THE SUN AND THE EARTH ARE ABLE TO PULL EACH OTHER

Now, the other great fact of the relation between the sun and the earth is that they attract each other; and no student of Nature can believe that they attract each other from a distance without there being something between them through which the attraction acts. So even if an ether were not wanted to convey light, it would be wanted for gravitation to act through.

We have learnt that light is an electrical disturbance in the ether; we have learnt that there are many other possible electrical disturbances in the ether which are of the same order as light in all essentials, though they do not happen to affect our eyes. All the properties of the ether, then, as we understand them, are known to be electrical, except in this matter of gravitation.

But now let us pay particular attention. These electrical forces that we know of in the ether can push and can pull. We have learnt about radiation pressure, which teaches us that pushes can be exerted through the ether; but it is also certain that pulls can be exerted through the ether. When any light thing flies to the rubbed amber, attraction of some kind is happening through the ether. Electricity and magnetism are different parts of one and the same thing, and when a magnet attracts a steel needle, a pull is being exerted through the ether.

SHALL WE LIVE TO LEARN NATURE'S GREATEST SECRET?

We have proof, then, of two kinds of attraction—electrical attraction and magnetic attraction—which happen by means of the ether. There is yet a third kind of attraction, chemical attraction, where atoms of one kind of element fly to atoms of another and form a compound — perhaps with great violence, producing light and heat. Every chemist knows now that this chemical attraction, which may be so powerful, is really electrical. It happens through the ether.

If, then, we are compelled to believe, as we are, that the ether is the seat of electrical attractions which account for the behaviour of positive and negative electricity, which account for magnetism, and which account for chemical attraction too, evidently it is only a step in thought to suppose that another kind of attraction, called gravitation, which must also act through the ether, is electrical also. We may dare to predict that many children who read these words will live to see Nature's greatest secret, the secret of gravitation, revealed along the lines here described.

THE TREMENDOUS POWER THAT WILL ONE DAY BE IN THE HANDS OF MAN

No one can say what new powers this will put, when it is at last discovered, into the hands of mankind; for to learn how gravitation acts will be sure to mean, sooner or later, learning how to control its action, and this opens up possibilities to which there is no limit at all. Every day we balance the action of gravitation by other forces, but to control its action is a different thing altogether, and would be by far the most important practical discovery that had ever been made.

We have now studied the Story of the Earth in all the greatest of its pages; we have seen how men had to begin by making the tremendous discovery that this flat, fixed earth, as it seemed, is really a round ball twisting on itself and flying through space. We have learnt how and why this ball flies, that it is one of many belonging to a family, and that that family is only one of a countless host of families in space.

Our study of the sun and of the stars has helped us to understand the earth and its place in the universe. We have learnt something of the crust of the earth, and we know that it bears records of the development of Life, and of more than Life, of Mind and Love also.

THE GREAT STORY THAT HAS BEEN UNFOLDED BEFORE US

We have had to study the stuff of which the crust of the earth is made, and which makes also the ocean of gases that covers the earth's crust everywhere, and at the bottom of which we live. We have learnt that the stuff of which the earth is made is the same as the stuff that makes the sun and stars. We have studied some of the countless changes that are always going on, especially through the great power of water, in the earth's crust, and also in the bodies of all the living things of which the earth is the cradle and the tomb. Lastly, we have studied the great forces which are at work throughout the universe, some of which act upon the earth, so that life is possible here. We have studied the laws of motion and of gravitation; we have studied sound and heat and light, and electricity and magnetism; and we have learnt, at any rate, the most important of the facts which the mind of man, toiling through many ages, has slowly begun to discover regarding them.

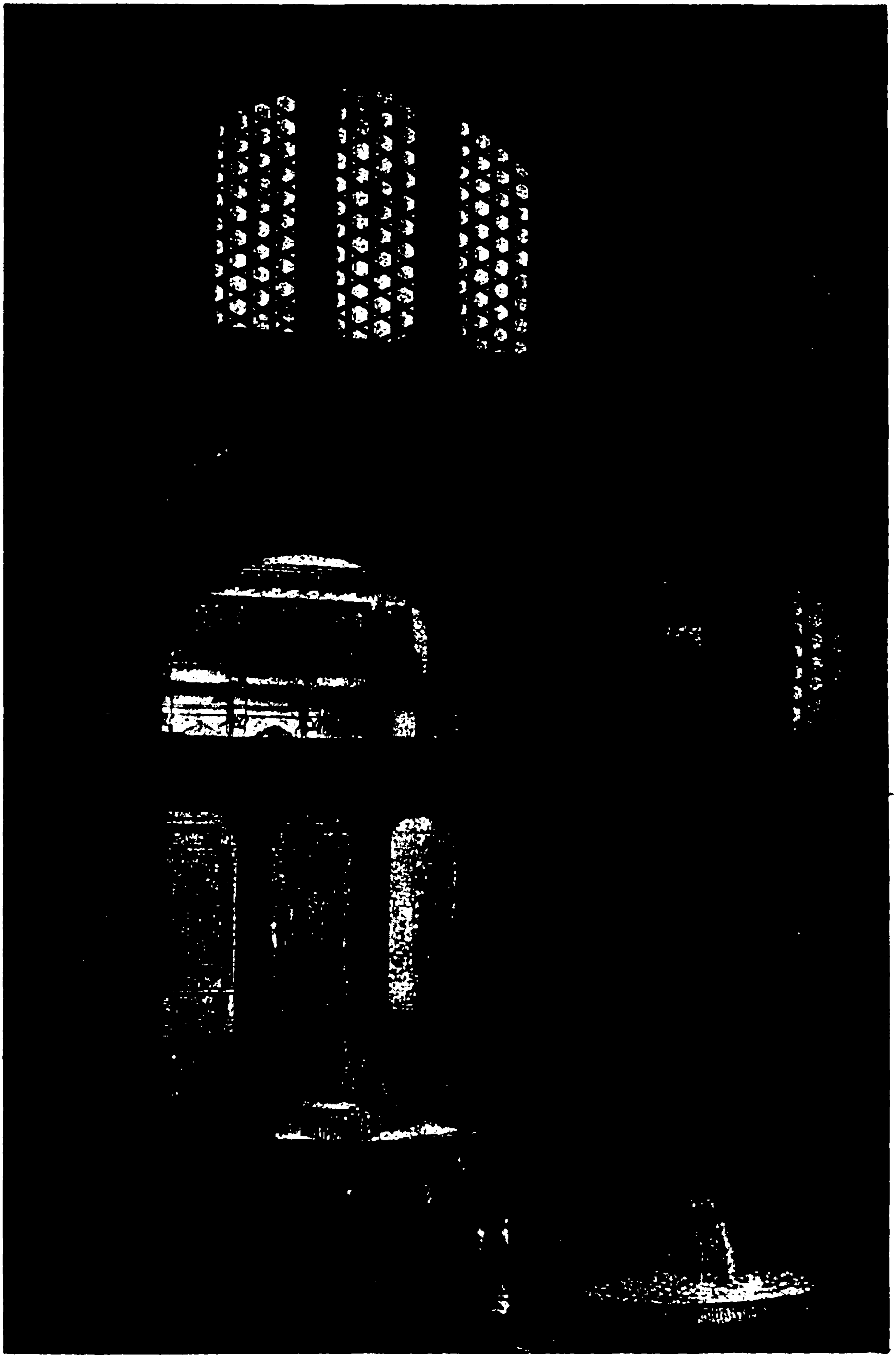
Greater than any one of these facts and conclusions are one or two supreme facts and conclusions which must govern and rule the minds of all thinking beings "to the last syllable of recorded time." The story which has been unfolded before us is that of a world which, with all its differences, is yet all One. We learn that we live in a Universe, a great Whole "whose body Nature is and God the soul." The laws of the little are the laws of the great. What is true at one time is true at another, nor is there any fact in all the universe which contradicts any other fact in any place or at any time, however distant.

THE CONSTANT TRUTH THAT NOTHING IS EVER LOST

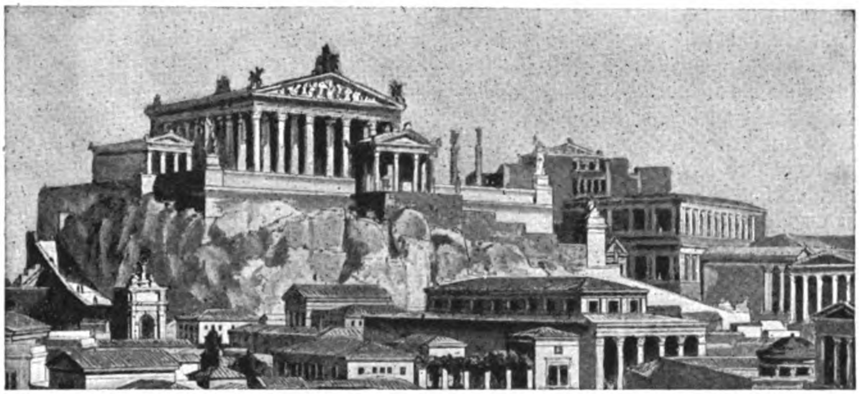
We have learnt, too, that everything changes; but though everything changes, nothing is ever lost and nothing is without consequence. Though new facts are always happening, they depend upon the old ones, and nothing new comes into being from anywhere. Perhaps we may have learnt, indeed, the supreme lesson learnt by William Wordsworth, as by the greatest of men since thought began, and expressed by him in these simple words, with which we may conclude our Story of the Earth:

For I have learned
To look on Nature; not as in the hour
Of thoughtless youth; but hearing oftentimes
The still, sad music of humanity,
Not harsh nor grating, though of ample power
To chasten and subdue. And I have felt
A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean, and the living air,
And the blue sky, and in the mind of man:
A motion and a spirit, that impels
All thinking things, all objects of all thought,
And rolls through all things.

THE WONDERFUL BATHS OF CARACALLA



The Romans, in the days of their wealth and luxury, spent much time at the public baths; and of all the magnificent buildings devoted to bathing, the baths of Caracalla, shown in this picture, were the most wonderful. Sixteen hundred people could bathe at one time, and the building measured nearly a mile round. The ruins are very impressive, and one writer has said that there is nothing in the world so grand as the remains of these baths.



The Capitol, the great national centre at Rome, as it appeared when the Romans ruled the world.

THE GRANDEUR THAT WAS ROME

CONTINUED FROM 5130

AUGUSTUS

In our journeys together through the countries of the Old World, we have often touched upon the prowess of Rome. We have seen her bring to an end the ancient stories of Greece, Persia, and Egypt, and then give shape, as it were, to the beginning of most of the countries of modern Europe. We remember the grand ruins still standing in various countries, which show how magnificent were the buildings, how skilful the engineering of the Romans ; and in all the countries where they settled, enough of their treasures have been dug up and collected for study, to bring us face to face with their owners. Besides this, many of their books have been handed down to us, and their language, their laws, and their customs are still influencing our world to-day.

For the beginnings of the story of the strong people who have thus linked the past with the present, we turn once more to the great steppe land which leads into the heart of Asia, whence poured out the migrations of Aryan peoples seeking new homes in the West. We read in the story of Greece, beginning on page 5121, how the tribes of the Hellenes swarmed into the peninsula that we now call Greece. Other tribes of near kindred to the Hellenes journeyed, probably by land across the passes of the snowy Alps, to the boot-shaped peninsula now known as Italy. By degrees various branches of the tribes, with their families and their herds of cattle, spread down the long peninsula. Some settled on the wooded heights of the Apennines, where the air blows so keenly and the gorges are so clear-cut by the dashing streams hurrying to the plains below. Other tribes preferred those plains where the fields were very fertile. The Umbrians found a resting-place round the head of the lovely Adriatic ; the Latins pushed on south of the yellow Tiber.

To the north of the Tiber there settled quite early along the west coast a vigorous, intelligent people of different race from the rest of the Italian tribes, called by us the Etruscans. Possibly these Etruscans were connected with the Hellenes, or Greeks, but nothing quite certain is yet known of their origin. Among the remains from Greece and Rome in the British Museum are many from Etruria, chiefly from the tombs that have such interesting wall-paintings. The red and black vases are thought to be copied from those of Greece. We have not yet a key to the language of their inscriptions. When these Etruscans are first heard of, they were far in advance of their Italian neighbours, making roads and canals, and building immense walls and towers for defence.

We do not know for certain when the Latins began to give up living in small villages consisting of groups of huts, which was the way of living of all the Italian tribes in the earliest days. By degrees they came to fortify a hill-top by building a wall, which made a safe refuge for a meeting-place. Finally, independent cities grew up, and often there was warfare with neighbours.

About fourteen miles from the mouth of the Tiber is a group of seven hills, one of which was thus chosen as a place of refuge. It became a city-state and was named Rome.

It has been said that the whole history of the world depended on the position of this group of hills. They are close together, and are near the sea. They are situated in the middle of Italy, and in the middle of Europe as it was known in ancient times, and also near the middle of the Mediterranean Sea, once the world's great, busy highway.

HOW THE BEGINNING OF ROME IS LOST IN THE MISTS OF THE PAST

We do not know when the foundation of Rome took place; some say 753 years before Christ, at the time when the "sons of Asshur" were so powerful in Assyria, and Egypt had already passed its greatest glory. The later Romans reckoned their years from the date of the founding of the city, as we do ours from the birth of Christ. In all countries it is very difficult to say when the old legends of beginnings end and the certain facts of history begin.

A race like the Romans, who rose to such immense power, naturally liked to feed their national pride by believing they were descended from gods and heroes; wonderful legends arose about their origin, and in process of time these were so grandly told by poets and historians that the world refuses even now to give up the attractive beliefs of long centuries. We are led very willingly back again to the siege of Troy, which scholars now place earlier than a thousand years before the birth of Christ, and watch its bitter ending for Priam and his family and friends. Æneas, whose father was Anchises, one of the Trojan heroes, and whose mother was the goddess of love and beauty, escaped from the dreadful slaughter, carrying his old father on his back.

After many thrilling adventures in the Mediterranean, including a visit to the Phœnician colony of Carthage, in which his goddess mother gave him much help, Æneas found his way to the west coast of Italy, where he married the daughter of the king of the country, named Latinus, and peaceably succeeded him as king of the Latins.

THE STRANGE STORY OF ROMULUS, THE FOUNDER OF ROME, AND THE WOLF

Many generations after, one of the daughters of the royal house had twin sons. Their father was the god of war. They grew up to strong manhood in spite of efforts to destroy them by casting them out upon the Tiber. A she-wolf nursed the boys till a shepherd found them and brought them up. They were named Romulus and Remus. Romulus succeeded in founding a colony and city on one of the group of seven hills near the mouth of the Tiber. This was the famous Palatine Hill, and this was the beginning of Rome.

The old stories give wonderful details of how the first Romans obtained their wives from the Sabine people living on another hill of the group, called later the Quirinal Hill, by running away with them at a joint festival. However this may be, the fact remains that one by one the seven hills were absorbed into one great walled city, made up of hills and valleys, green fields as well as dwelling-houses, with a fort on the Capitoline Hill. The Romans ever welcomed strangers to live within their safe enclosure, and traded with their neighbours round; they also fought continually with these neighbours, especially with the Etruscans, who, besides being foes, were the teachers of the Romans.

THE WALLS OF ROME, WHICH ENCLOSED A STATE AS WELL AS A CITY

Many and interesting are the glimpses given us of Rome in its cradle, in the story of the rule of the kings who succeeded Romulus, lasting about 250 years. We see the sober, hard-working peasants, developing by their patient toil qualities that made their race the best soldiers in the world. Marvellous were the great works of the kings, such as the city walls, enclosing a state as well as a city, and the great sewers by which the marshes at the foot of the hills were drained, some of the arches being high enough for the loaded hay-carts to pass under. There was the fine Circus Maximus in one of the valleys, for games and races; and the picturesque stalls of the workers at various trades were set up round the market-place, or Forum, in another valley. Fine, too, were the temples rising up near the Forum and on the hill above, a faint shadow, as it were, of the glories that came afterwards.

But the people grew to hate the rule of the kings, and at last these were driven out, and a republic set up about 500 years before Christ. The chief officers of the republic were the consuls, and there was a council called the senate.

Lord Macaulay, in the "Lays of Ancient Rome," which we read on page 1403, gives vivid pictures of these old times when Rome, the youngest of the Latin states, was developing the character and strength by which she was able not only to rise to their headship, but to pass on to the conquest of the world.

HOW THE RULE OF THE FATHERS BECAME THE RULE OF THE NOBLES

The simple family life, the hard-working peasants, the well-trained soldiers, the stern obedience to law, were some of the factors that led on to success. At first the state was made up of a number of families, each ruled by the fathers, or heads, called the *patres*. The king presided over the council formed by these patres, who became the *patricians*, or nobility. The new people who crowded into Rome for trade or shelter were called by the patres, who looked down on them, the *plebes*, or crowd. This was the beginning of a government by nobles, the patricians, over numbers of people below them in wealth and position, the plebeians.

These plebeians had no share in the government, no voice or vote in settling public affairs. The patricians became more and more unfair and unkind to the plebeians as time went on, till at last these would not endure it, and Rome, being torn in pieces at home, was unable to push conquests abroad for a long while. But the Roman people gained so much training in the long struggle, in the way of obedience, self-control, and perseverance, and in wisdom as to what was best for the general life of all, that they became thoroughly fitted in the course of years not only to conquer the world, but to govern it as well.

THE STRUGGLE OF THE ROMAN PEOPLE FOR THE RIGHT TO MAKE THEIR LAWS

After a time the kingdom became a republic, but the difficulties of settling the new republic were great and prolonged. The plebeians slowly gained their rights, not by riots or bloodshed, but by obeying the laws, however much they disliked them, and by patiently striving for one step at a time. They got their own magistrates, who were called tribunes, and the privilege of owning land, and at last they helped to make the laws they had to obey. Two stories stand out prominently in the history of the small wars that went on from time to time with the tribes around during the struggles of the plebeians against the patricians.

One is that of Coriolanus, the brave man who, shut in alone in the enemy's city, yet managed to take it. Afterwards he had cause of complaint against his countrymen, and went over to the enemy, even leading their army against Rome. In vain did the senators and priests plead with him. It was only when his mother begged him to spare Rome that he gave in.

Then the story of Cincinnatus shows us how simple the old customs of Rome were, and how all citizens served the State. We see the curly-haired Cincinnatus at work ploughing on his farm, when messengers come to ask him to get the consul and his army out of a difficulty. Cincinnatus called for his cloak, and went at once, and succeeded in doing what was wanted. He then returned home to his farming.

THE FIERCE GAULS WHO DROVE THE ROMANS IN TERROR FROM THEIR CITY

All the time when there were little wars such as these in which Coriolanus and Cincinnatus shine out, Rome had always in her mind her old enemies, the Etruscans. These were wealthy traders. But the time came when their power began to decline. The Greeks won a great sea victory over them, and then came the Gauls, who were settled all over the northern parts of Italy. These attacked the Etruscans on land, and the Romans attacked them from the south.

In the year 309 before Christ, the tall and terrible Gauls, with their fair hair and flashing eyes, came down upon Rome itself, as we read on page 554, after defeating a Roman army of 40,000 men. We are told that "their harsh music and discordant clamours filled all places with a horrible din," and their long swords cut through the helmets of the Romans, making them flee in terror and panic.

No one thought of defending the walls of the city; the Capitol fortress on the Capitoline Hill alone held out, as we read in the story of the Sacred Geese, on page 554, and the white-bearded priests sat like statues in the Forum of the deserted city. The Gauls killed the priests, set fire to the city, demanded a heavy ransom, and departed. In this fire the city records perished, and with them all that would have given us actual facts about the thrilling story of the past.

HOW THE ROMANS LEARNT TO FIGHT AGAINST ELEPHANTS AND WON ITALY

The Romans learnt much from their war with the Gauls, and steadily pursued their conquests over the rest of the states of the peninsula. After settling with the brave Samnites and the Etruscans, they had long wars with the Greek cities in the South. One of these was Tarentum. The people were one day sitting in an open-air theatre, like the one in Athens, listening to one of the splendid Greek plays; when they looked up, they saw the Roman ships sailing close to their harbour. So the war began, and they asked Pyrrhus of Greece to help them. It took the Romans five years to win.

As the war went on they learnt some useful lessons, understanding how to fight against elephants and how to improve their cavalry. When Pyrrhus had gone home, in the year 274 before Christ, after losing nearly all his troops, all the peninsula of Italy had passed to Rome. The splendid Greek cities of the South furnished beautiful works of art, and many articles of luxury hitherto almost unknown to the victors.

We see in the story of modern Italy, that begins on page 3011, how difficult the long, narrow country has always been to govern from one centre. The Romans had two plans by which to hold their conquests, and with these we are already familiar, because they were the same as were used in Britain. Colonies were founded, in which Roman citizens, who never forgot Rome, were sent to live and work, and teach others to do the same. Also fine roads were made to connect the colonies and the camps of the soldiers with the capital, along which roads troops could travel quickly and trade routes could be established.

A NAVY THAT WAS COPIED FROM A WRECK, AND SAILORS WHO ROWED IN SAND

Soon after Pyrrhus had returned home, the tremendous wars between Rome and Carthage began. We read on page 5122, in the story of Greece, that Carthage was a colony of Phœnicia, and these wars are generally called the Punic, or Phœnician, wars. The western half of the north coast of Africa had been conquered by the Carthaginians, but the natives had not been well treated by them; so when they had to serve in the armies of their conquerors, they had none of the enthusiasm for their cause which the Roman soldiers had for theirs—they cared only for their pay.

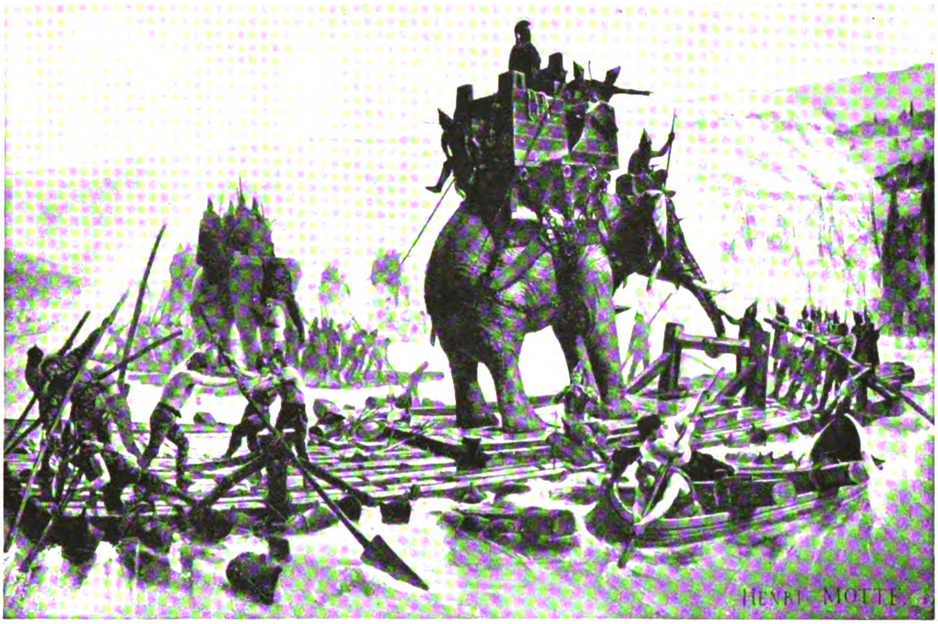
The war began in Sicily, the lovely island midway between Rome and Carthage, and the Romans soon found that they must have a navy. With great courage and energy they set to work building ships, taking a stranded Carthaginian vessel as a model. While the sawing and hammering were going on, crews were in training, sitting on benches on the shore, practising rowing in the sand.

Great was the enthusiasm in Rome when the first naval hero returned after the first sea victory, which was gained at Mylæ, in the year 260 before Christ. But there were many ups and downs in the campaign. The great Roman fleet which was afterwards built defeated the enemy and carried to Africa an army which, under Regulus, had much success, till the splendid cavalry and the huge elephants of the Carthaginians turned the tide of war once more. We read the story of the bravery of Regulus elsewhere.

THE DELIGHT OF THE PEOPLE WHEN ELEPHANTS FIRST WENT TO ROME

In a later fight, 120 of the "huge, earth-shaking beasts" were taken and sent to Rome, to the great delight of the people, who had never seen elephants before. After twenty-three years of fighting, the first Punic war came to an end, peace being made by that most gallant general and wise man, Hamilcar, who was able to see when it was time

ENEMIES OF ROME IN VICTORY AND DEFEAT



Crossing the Alps amid the greatest difficulties, Hannibal, the famous Carthaginian general, defeated the Romans again and again, sweeping everything before him. After the battle of Cannæ, when he annihilated a Roman army, if his countrymen had sent him fresh supplies, he would probably have destroyed Rome for ever. But the reinforcements never came, and later Hannibal was recalled to Africa, where he was defeated by the Romans. In this picture we see Hannibal's army crossing the River Rhone, on its march into Italy.

The Goths, who had been driven from their old homes between the Black and the Baltic Seas by the Huns, entered the Roman Empire for protection about the year 375. They were incorporated in the empire, but later rebelled against the emperor, and, electing one of their officers named Alaric as king, entered Italy and three times besieged Rome. Twice the senate bribed them to retire, but the third time they took the city and, in the year 408, plundered it, committing many excesses. Here we see the Goths entering Rome.

to give in. Sicily was made a Roman province some years later, and then Sardinia and Corsica also became provinces.

Hamilcar had a son who was a great general, too. This was Hannibal. We are told that he worked day and night, and thought only of sleep when there remained nothing else that could be done.

HANNIBAL'S TERRIBLE MARCH ACROSS THE ALPS

After a useful campaign in Spain, where his father had been so successful in forming a province, he made one of the great marches of history. Leading his army of 50,000 foot soldiers and 10,000 horsemen, with numbers of elephants, he passed northward along the east coast of Spain, by the eastern "gate" of the Pyrenees, round the Gulf of Lions, across the swift Rhone, and then over the Alps themselves to the plains of North Italy. So rapid was his march that at every spot where the Romans had hoped to stop him they always arrived too late.

It is a pitiful thing to remember the lives that were sacrificed on the slippery, icy paths and the steep mountain-sides of the Alps. The cold was intense, and the people of the country rolled down great boulders on them, and attacked them from behind, just as the Swiss treated the Austrians many centuries later.

Before long all the valley of the Po was conquered by Hannibal, and he marched triumphantly down the peninsula, through Etruria, taking the Romans by surprise in the mist of the morning on Lake Trasimenus. A great attempt to get rid of Hannibal was made the next year at Cannæ, where all the best Roman soldiers were killed. In the British Museum, among many specimens of Roman armour of different periods, is a helmet found at Cannæ.

THE DESTRUCTION OF CARTHAGE AND THE CONQUEST OF GREECE

But the Romans, as usual, learnt much from defeat, and they patiently waited, until at last the great Scipio drove the Carthaginians out of Spain, and then beat them in Africa, so that they had to send for Hannibal to come home. In the year 202 before Christ, Scipio destroyed, at Zama, near Carthage, the army that had harassed Italy for sixteen years.

Rome was now the chief state in the West, and was supreme, owing to her ships, in the Mediterranean. The time had now come to turn her face eastwards. There had been a conflict with Macedonia during the second Punic war, and when that mighty struggle was finished, the Roman legion and the Macedonian phalanx—the light, easily-turned troops, and the solid body of bronze-clad warriors—met in Thessaly. The legions were successful, and passed on, after a time, to set foot in Asia, where they won a tremendous victory at Magnesia under the brother of the great Scipio, who had, after his successes in Africa, been given the name of Africanus. A terrible battle at Pydna, in Macedonia, settled the fate of the country in the year 168 before Christ.

In the same year Rome found an excuse to destroy Carthage, because it had not kept strictly to the hard terms of the peace made at the end of the second Punic war. The story—one of the saddest in history—is related by an eye-witness. The innocent people were totally destroyed, and the city was completely levelled with the ground.

THE CITY ON THE SEVEN HILLS THAT SWAYED BOTH EAST AND WEST

Among the Roman remains in the British Museum are shown some beautiful tessellated pavements from Carthage, once pressed by the feet of its prosperous citizens. One can easily imagine that he hears the patter of the children's light, dancing steps, as well as the slow, heavy tread of the aged, in the days when Carthage was great and gay. After the days of horror, the earth covered up these pavements in deep silence for centuries.

Spain was only conquered by most determined efforts. When at last success came to the Romans, the Mediterranean Sea had become a Roman lake, for Egypt alone still remained independent under the successors of Alexander. From Mount Taurus, in Asia Minor, to the Pillars of Hercules, the city on the seven hills now held sway.

But in the gaining of all this world-power the soul of the victors was sadly lost. No longer were they the simple, dignified people of old days. Riches increased so that luxury killed their finest qualities, and made them grasping and cruel. Slaves, ill-treated and mutinous, filled the place of the sturdy peasants whose bones now whitened the distant battlefields. So farming came to be neglected as the land passed from the care of free men into large estates, owned by rich nobles living in towns. And these estates were often worked by slaves chained together in gangs.

Many of the best men in Rome saw the dangers that were falling on their country. One of these was Cato, who hated the new luxury and much of the Greek influence that had affected the religion of the country. Ever since the days when the Romans had warred with the Greek colonies in Italy, they had been learning to take an interest in Greek books, pictures, and statues, and some of the new things they learnt did not tend to keep up the old rough strength.

Another danger to the Roman state was the way in which the government had changed. Hardly had the old differences between the patricians and plebeians been settled than new difficulties arose. The chief offices of state came to be held almost entirely by a few rich families, and these made up the senate which governed Rome.

THE WORTHLESS MOB THAT CAME TO ROME TO SEE THE CRUEL GAMES

The senate, to get its own way, allowed the rich traders to be as oppressive as they pleased in gathering the taxes in the provinces, and the common people were kept quiet and contented by bribes of food and great entertainments in the circus. These entertainments led to terrible cruelties to men and beasts, as the taste of the mob became more and more lowered. It was their great delight to see lions and tigers hunted, also the feats of men called gladiators, who were trained to attack all kinds of animals and to fight each other to the death.

These games, and the gifts of free food, drew together in Rome a great mob of idle and worthless people, quite unfit to take any useful part in the great empire that was governed by their city.

There was much oppression, too, in Italy itself and in the distant provinces, and bribery and unfairness of all kinds prevailed everywhere. A noble pair of brothers called the Gracchi—we read the touching story of their proud mother, Cornelia, on page 2632—strove hard to reform some of the evils, especially with regard to the land, so that poor people might be able to get small farms again; and in other ways they tried to take power out of the hands of the nobles, and improve the condition of the poor.

HOW BAD GOVERNMENT SHOOK THE VERY FOUNDATIONS OF ROME

But the misgovernment went on, and it became difficult to keep the enormous number of slaves in order. The army, too, so often flushed with success, became ever a more and more dangerous force in the state. For no longer were the Roman soldiers citizens like Cincinnatus, who fought only when their country needed them. When war became so constant, the army became a trade, which had a bad effect all round.

When Rome had conquered practically all the civilised peoples of the world, those who lived together in states and cities, and made and obeyed laws, she turned to the various uncivilised tribes who lived in a wild way on the outskirts of her empire, and who only united in the face of a great common danger.

Marius was a powerful and brilliant general, risen from the ranks, who defeated two great tribes—the barbarian Teutons and the Cimbri, who had entered Gaul west of the Alps. He succeeded in making himself chief consul for many years. Many troubles fell on Rome at this time—troubles in Italy, in the East, in Greece, and, worst of all, in Rome itself. We have the extraordinary spectacle of Rome being taken by part of her own army, under Sulla, a great enemy of Marius, so keen and bitter were the quarrels which led to ruinous civil wars.

In this first century before Christ, Rome was rich in great men. One was Cicero, who had wonderful power in speaking to men and in moving them. Many of his speeches have come down to us, and through them we learn much that is interesting about those troublous times.

THE TIME OF JULIUS CÆSAR, ONE OF THE WORLD'S GREATEST MEN

Another great man was Pompey, who cleared the Mediterranean of pirates, settled difficulties in Asia, and had much power in Rome itself. Another was Julius Cæsar, one of the greatest men in all history, great as a general, great as a statesman, and great as a writer. In the year 60 before Christ he became consul with Pompey and Crassus, and succeeded in getting the governorship of Gaul. In his "Commentaries on the Gallic War" he has left us an account of his expeditions and of the hard work by which he conquered all the land north of the Pyrenees and west of the Rhine. He gives an account of the south of our own island, which he visited twice. Gaul he bound firmly to Rome, by treating the conquered people kindly after they were thoroughly beaten, by introducing Roman ideas and customs, by making roads, and by starting buildings.

"VENI, VIDI, VICI." CÆSAR'S FAMOUS LETTER IN THREE WORDS

When at last he felt he could leave his province safely, and had also made himself known as a successful general and the "beloved of his soldiers," he was ready to carry out the plans he had made to change the government of Rome.

Crassus had been killed in battle against the Parthians, and then Pompey and Cæsar became rivals for the chief power. When the senate refused to do as Cæsar wished, he came from Gaul with his army and crossed the little river, the Rubicon, into Italy, to fight for his cause. Pompey and the senate and the consuls all sailed away to Greece, and in sixty days Cæsar had gained all Italy.

A great battle was fought between the two generals at Pharsalia, in Greece, the next year, and Cæsar won.

For the next few years he had no rest, going from Egypt to Asia, whence he wrote his famous letter in three words, "veni, vidi, vici"—meaning "I came, I saw, I conquered"—from Asia to Rome, then to Africa, thence to Spain. In the year 45 before Christ he returned to Rome, master of the Roman world.

HOW THE MASTER OF THE WORLD WAS STRUCK DOWN BY HIS FRIENDS

Cæsar was assassinated in the senate house the next year by his old friends, who thought it their duty to prevent Rome from coming under the rule of one single man. In Shakespeare's play of "Julius Cæsar" is the thrilling account of the tragedy, and the speech of Mark Antony over the body of Cæsar. A part of this noble speech is given on page 2917

Civil war followed, during which time Egypt became a Roman province, as we read in the story of that country beginning on page 4779 Cæsar's clear-cut, determined face, which shows him to be a great ruler of men, is the first in the gallery of splendid Roman portrait busts in the British Museum. Next to him we see Augustus. After thirteen years of confusion, this adopted son of Cæsar slowly and carefully gathered all power into his own capable hands till the Romans found that they could not do without him.

When he called himself imperator, whence comes our word emperor, it meant that he was the holder of a military command from the people. When he became censor, he could influence appointments to the senate; as *princeps*, or prince of the senate, he could always speak first at its meetings. Then he became chief magistrate of Rome, and head of the national religion.

Many wise changes were introduced which brought about law and order, not only in Rome, but in Italy and the distant provinces. And so, without trouble, the ancient republic passed away, and the rule by one man was set up.

AUGUSTUS, WHO RULED THE WORLD WHEN JESUS WAS BORN

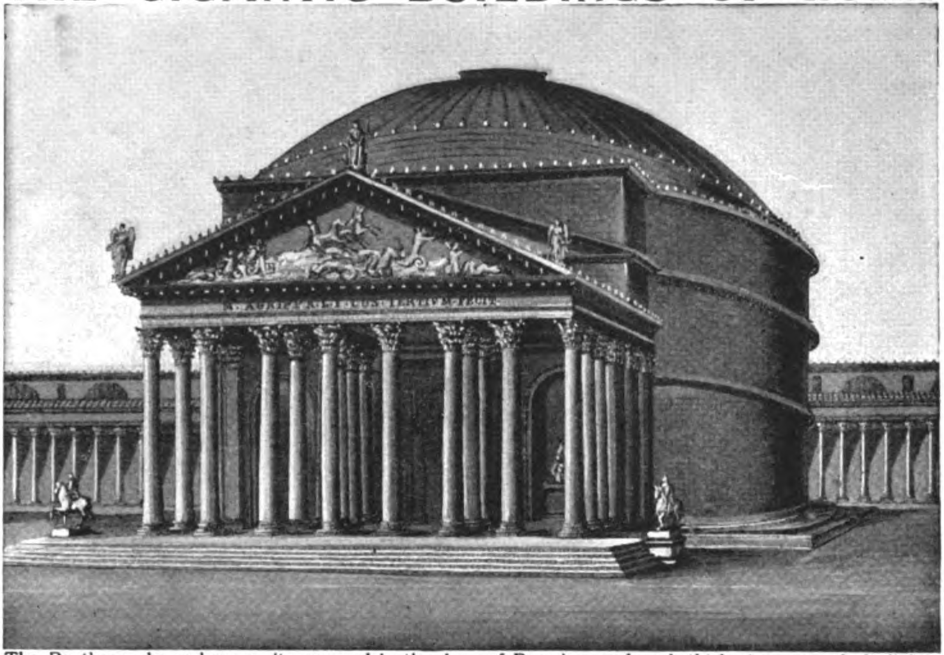
In the time of Augustus there were so many great writers in Rome—such as Virgil, who wrote the splendid poem about Æneas and the founding of the city; Livy, the historian; and Horace, the interesting poet—that to this day a period full of great writers is called an Augustan Age.

But the great epoch-making event that took place in the reign of Augustus was the birth of Jesus in the far-distant province of Syria. It was Augustus who, all unknowing, determined the place of the birth of Jesus, for the emperor ordered a census, or counting of the people, which Mary was on her way to attend when Jesus was born in Bethlehem.

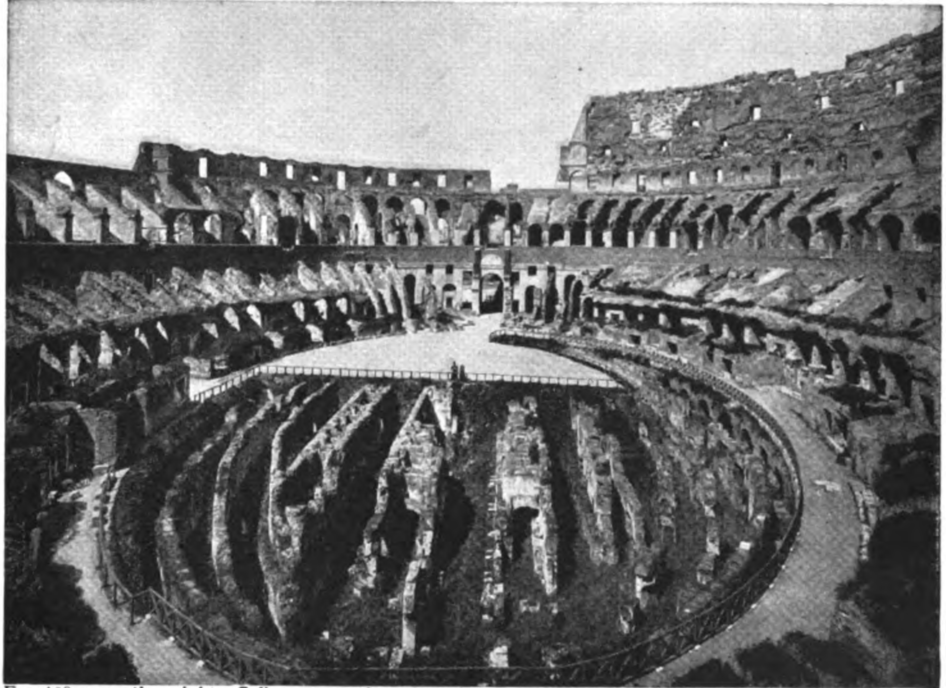
How astonished the powerful emperor and all the great men of his time would have been if they had known that it was not their fame or achievements that would so greatly influence the world, but rather the life and words of the humbly-born Babe, who grew up to work in a carpenter's shop, and who, later, had not where to lay His head.

Augustus was the first of a line of emperors who ruled the world for 300 years. We can read their stories and look at their faces in the part of this book beginning on page 527 In the

THE GIGANTIC BUILDINGS OF ROME



The Pantheon, shown here as it appeared in the days of Rome's grandeur, is the best preserved of all her wonderful buildings that have lsated to the present day. Built as a temple to all the gods, 27 years before the birth of Christ, it has been for about thirteen centuries a Christian church, and is still one of the most perfect buildings in the world from an artistic standpoint. Raphael and other great artists lie buried in the Pantheon.



For 400 years the mighty Coliseum was the scene of the cruellest spectacles the world has ever witnessed. Here 87,000 spectators watched the death-struggles of gladiators, the fierce fighting of hundreds of animals, and the martyrdom of Christians. Sometimes the arena was flooded and great mimic sea-fights took place. During the Middle Ages much of the masonry was removed, and now the Coliseum is the most impressive of ruins.

British Museum are many deeply interesting memorials of those grand and sometimes bad days—armour, weapons, sculpture, pens—which were called *styli*—inkpots, shoes, keys—for slaves could seldom be trusted—purses and money—all of which make a historical picture-gallery of great interest.

THE CITY THAT WAS BURIED IN A STORM OF FIRE

All these things, and many more, cause us to feel at home with the old Romans. Some of the most wonderful of these things come from the city of Pompeii, overwhelmed by lava and ashes from Vesuvius in the year 79. So fresh are the colours of the paintings on its walls, so modern their subjects, and so like ours are the cooking implements, that we can scarcely realise how long ago the awful and sudden burial took place. This sealing up by Mother Nature of the city of Pompeii has kept intact for us the very cart-tracks in its streets and the scribbled advertisements on its walls, as well as such matters as the arrangement of houses, baths, and theatres.

In Rome itself, the temples to the gods and the palaces for the emperors were very numerous. Many of the Roman emperors did something toward beautifying the old city on the seven hills. There is the arch of Titus, which we see on page 5012, showing his victory over the Jews and the spoils of the Temple being carried round Rome in triumph. He and his fine father, Vespasian, built splendid baths and the Coliseum which we see on page 628.

In this vast amphitheatre thousands of spectators sat watching the games and shows that the emperors provided to keep the mob in good temper. Its ruins are among the most impressive and astonishing in the world.

THE GOOD EMPERORS WHO RULED ROME FOR A HUNDRED YEARS

Trajan built the magnificent Forum, with galleries and walls round its open square, and here he set up the column of which we have a cast in the Victoria and Albert Museum in London. This gives the chiselled picture of Trajan's victories over the Dacians—the barbarians across the Danube.

For a hundred years after Trajan, good emperors ruled in Rome, and there was a time of peace and prosperity. The work of fine artists makes the grandeur and brilliance of imperial Rome still live for us. For we can watch them feasting amid showers of roses, or listening to the old Greek stories in gardens by the blue sea, or joining in magnificent processions. But while the careless luxury was going on, ever round the frontiers of the empire the rough, strong peoples were encroaching and gaining little by little. In the middle of the third century there was defeat on every side. The Goths and the Vandals were terrible foes, and the empire began to break up.

We know how Constantine favoured the Christians, and how he founded a new capital in the East about the year 330, and how, in the next century, the empire was divided into two, with Constantinople for the capital of the eastern half, and Rome for that of the western.

There was a terrible time when the Goths poured down the peninsula and took Rome itself, in 410. So much damage did these rough people do that to this day we speak of anyone who is careless of beautiful things as a Goth.

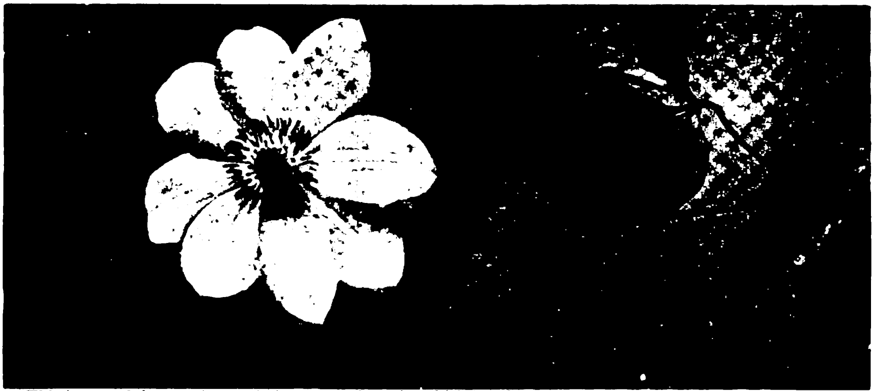
HOW THE SPIRIT OF ROME LINGERED ON IN THE WORLD

But the spirit of Rome lingered on. In the West the barbarian conquerors settled down in Spain, Gaul, and Italy, and learnt the language and customs and manners of the people of the old Roman provinces, and to the Christian bishops of Rome was given in these countries a headship which still exists.

In the East a long struggle against Huns and Persians, Arabs and Turks lasted on, as we know, till the taking of Constantinople in 1453 made that city the capital of the Turkish Empire.

What a pageant the long story presents to us! Always the tramp of soldiers from first to last, and for centuries we hear the steady sweep of the oars as the prows, with victory aboard, point from end to end of the Great Sea. As we dream again of the early legends, of the grand buildings, the wild revelry, the work of all kinds, the yells of the storming barbarians, we feel that the sickly perfumes of the extravagant baths and feasts are overpowered by the fine smell of freshly-turned earth under the freeman's plough. For we forget the evil, and remember only that figures of heroes are passing by.

CONTINUED ON PAGE 5331



This is one of the prettiest varieties of the clematis, which is cultivated as a climber over walls and porches.

THE FLOWERS OF THE GARDEN

CONTINUED FROM 5193

There is no such thing in wild Nature as a double rose. All the wild roses have only five petals, a great number of stamens, and several pistils. The gardener has so coaxed and petted the rose that he has induced it to turn nearly all its stamens into petals, and he has changed its colour so often that now we may have roses of almost any tint, from yellow and white and pink to the darkest of purple crimsons. He has been trying for long years to grow a blue rose, but, so far, has always failed.

To-day there are the names of more than a thousand garden varieties of roses in the catalogues of the nurserymen. Owing to the fact mentioned, that the " doubling " of the rose has meant the loss of most, or all, of its stamens, these flowers, lovely as we may consider them, are, after all, imperfect flowers. The pistils are mostly there, but if they produce seeds it is, in most cases, through pollen brought by the bees from wild roses in the fields; so that the seeds grow into plants with flowers more or less like the field rose.

So when a flower appears that is better than others of that particular kind of rose, the gardener has to cut off the shoot that produced it, and to get it to take root. Then, when it has grown into a little bush, he cuts out a number of the shoot-buds from the stems, and fixes them under the skin of a wild rose, and when the wound has healed and the bud has grown into a shoot, he cuts off all the other shoots and buds of the wild rose, and allows only the new parts to grow. In this way he makes a number of specimens of his new rose out of the one little cutting he induced to root. Some of the shoots he may cause to grow on wild-rose stems — or " stocks," as he calls them — by grafting; and by this means all the garden roses have to be increased.

Perhaps the most popular of all garden flowers just now is the sweet pea. It grows wild in Sicily, and was first grown in our gardens a little more than two hundred years ago. There is no need to describe the flower, except to point out that its structure is the same as that of the narrow-leaved everlasting pea, and of the broad-leaved everlasting pea of the garden. These, however, are perennials, and bear their flowers in clusters, or racemes, while the sweet pea is an annual, and bears only two or three blossoms on each flower-stalk.

The carnation, in its wild state, is,

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of course, always single, and it is a native of the countries around the Mediterranean. It is believed to have been taken to England as far back as the middle of the thirteenth century. Owing to its strong, clovelike scent it used to be called the clove, or clove-pink. As a wild flower its colour is always lilac; but by careful selection and crossing between the best of the varieties that appeared in gardens we now have all sorts of tints.

Garden pinks of all kinds are closely related to the carnation; so is the old-fashioned sweet-william, which has broader and greener leaves, and the brilliant Chinese pink so frequently grown as a garden annual. The pink and the sweet-william came from Europe long, long ago, and the Chinese, or Indian pink was brought here from China just about two hundred years ago.

THE GERANIUMS

Then there are the geraniums used for bedding in the summer months, but which are too tender to stand our winter climate out of doors. Their proper name is pelargoniums, but the gardener persists in calling them geraniums. We have a number of wild geraniums in this country, but no pelargoniums. The latter were introduced from South Africa about two hundred years ago, and have been so improved by crossing that they have little resemblance to the original South African plants. They may be ranked in three distinct classes — the show pelargoniums of our greenhouses, with large, richly coloured flowers; the zonal, or bedding pelargoniums; and the ivy-leaved pelargoniums that look so well trailing over the sides of window-boxes.

THE STOCKS

Brompton and ten-week stocks are cultivated forms of plants that grow wild in the south of Europe, and they have grown in our gardens for a hundred and fifty years. They are annuals. The wallflower belongs to the same family — the cross-bearers — and is also a European plant; but it has been known in English gardens for over three hundred years. Arabis, that produces masses of pure white flowers in early spring on rockeries and in border edgings, is another member of the same family. It was taken to England from the Caucasus little more than a century ago.

THE BUTTERCUP FAMILY

The buttercup family has given us many garden flowers, among them all the beautiful forms of clematis that climb over our walls and porches, covering them with white or purple flowers. One of the best of the white-flowered kinds is the mountain clematis from India. The big-flowered purple and blue kinds are cultivated forms of a Japanese species. There are no petals in any clematis, the showiness of the flower being due to the four sepals. The noble larkspurs also belong to this family.

Often in cottage gardens we shall find a larkspur with leaves divided into hair-like portions, and with a spike of blue, red, or white flowers. This is also a cornfield weed in the east of England. But in larger gardens we shall frequently see a larkspur that towers up to six feet or more, and ends in a long, thick column of brilliant blue flowers. Its parents grew wild in North America a hundred and fifty years ago.

The Christmas rose is another of the buttercup family, nearly related to the wild hellebores. It is no rose at all. Its bold, white flowers appear in winter, and so are greatly esteemed. All the brightly coloured ranunculi are true buttercups with larger flowers than any of our wild yellow kinds; they came from Turkey and Persia, where they had been cultivated long before. The garden anemones, too, are relations.

There are poppy anemones also, and Japanese anemones, the latter tall-growing, with handsome leaves and large white or pink flowers. Poppy anemones are real old-fashioned garden flowers, for we have grown them for three hundred years; but the scarlet anemone and the Japanese anemone are quite modern introductions.

Columbines, monk's-hood, and peony all belong to the Buttercup family, although they are so unlike in general form. The columbines come near to the larkspurs. Up to the middle of last century the garden columbines were mostly forms of the European kind, but in later years, owing to the coming of the beautiful, long-spurred, yellow columbine from California in 1873, a good deal of crossing has taken place. The peony, though a native of South Europe, was grown in English gardens at least three hundred and fifty years ago. These peonies were the large-flowered, dark crimson kind, and a smaller white-flowered one from Siberia; but towards the end of the eighteenth century the shrubby tree-peony was brought from China and Japan, and became popular on account of its more delicate tints.

THE VIOLETS

Garden violets are improved forms of the wild sweet violet, and the pansies and bedding violas have been produced from the little wild pansy, or heartsease. Many of the garden violets are double; but the florists do not appear to have tried to get double pansies — they seem to have tried to keep the flower as flat as possible.

THE FUCHSIA

Except as a summer bedding plant, the fuchsia is only seen in gardens of the extreme south and west of our country. In California we shall find it is one of the common garden bushes, and it often becomes a small tree. It is a South American plant, that was unknown in this country until near the end of the eighteenth century.

THE POLYANTHUS

The polyanthus is to-day rather a forgotten and neglected flower, but we shall still find it treasured in old-fashioned gardens and gardens of country cottages. It is believed to have had its origin in a crossing of pollen between the primrose and the cowslip, the result being the large flowers of the primrose on the tall flower-stalk of the cowslip, with a greater variety of richer tints than either of its original parents possessed. The auricula is another kind of primrose that was formerly a great favourite of gardeners. All the many varieties of rich colouring have been produced from the yellow-flowered auricula that grows wild in the Swiss Alps.

Among the wild flowers that have been taken into the garden without it being thought necessary to improve them is the graceful and dainty London pride.

THE SEDUMS

Several wild sedums, or stonecrops, of Europe have been admitted into the garden; not only the yellow and white stonecrops, but also the taller crimson-flowered orpine. A beautiful sedum with bright crimson flowers is the trailing stonecrop from the Caucasus region.

THE THISTLES

We have even taken into the garden several thistles, among them the handsome, blue-flowered globe thistle, from the south of Europe, which has been with us for more than three hundred years. The cotton thistle, which is a tall, branching plant, with huge but handsome spiny leaves, covered with white, cotton-like hairs, is wild in some parts of the country. Another fine thistle is called the holy thistle, or milk thistle. Its large leaves are marked with white along the midrib.

SOLOMON'S SEAL

Solomon's seal is a real wild flower; but it is much more frequently seen in our woods than in the garden. It is one of the lily family, though its habit is so very different from most of the lilies. Its tall, arching stem, set with a row of leaves on each side, looks more like the frond of some palm. The greenish-white, narrow, bell-like flowers present a very singular appearance.

THE LILIES

The lily family figures largely in our gardens, and of the lilies proper we have introduced several. There is, perhaps, none of them so fine as the hardy madonna lily, or white lily. It is wild in the south of Europe. There is also the tiger lily, with its dark-spotted, orange-red flowers, that came from China a hundred years ago, from which country and Japan we have received several other lilies.

The strongly scented Japanese lily, with the golden stripe down the middle of the large white petals, is, perhaps, the favourite, though it is not hardy, and can only be turned into the garden in summer, being usually planted in tubs and grown in the greenhouse, until the flower-buds have formed. This lily was unknown to us fifty years ago.

Very similar, except for the golden stripe, is the showy lily, a smaller but more hardy kind that came from Japan nearly eighty years ago. Then there is the giant lily, that has large, heart-shaped leaves, and a stem ten feet long, that ends in a cluster of drooping white, trumpet-shaped flowers. The star of Bethlehem is another plant of the lily tribe, which, though a native of Europe, has become naturalised in some woods. It is one of the prettiest of our smaller bulbous plants, its numerous grass-like leaves spreading around a stem crowded with white, star-like flowers.

Among other lilies we must not forget the tulip, of which we have a great number of varieties of diverse forms and colours. Most of them have descended from three wild tulips found in South Europe, Siberia, and Asia Minor. The fragrant white day lily is from Japan, as well as its blue relatives. The sweet-flowered lily of the valley is a wild plant of the woods which is much more frequently seen in gardens than outside of them. The stately red-hot poker, which makes so fine a display in parks and gardens at the end of summer, is also a lily, coming from South Africa.

THE HYACINTHS

The garden flowers that arise from bulbs, like these lilies, might well take up an article to themselves — they are so many. Many of them are known under the general head of Dutch bulbs. Among these are the wonderful trusses of sweetly perfumed hyacinth-bells that spring from the onion-like bulb in all sorts of charming tints. The original stock from which all these varieties have been produced is the oriental hyacinth, which is wild in Syria.

The grape hyacinth belongs to another section of the lily family, and grows wild in Europe and the Orient. Instead of the bell-shaped flowers of *the* hyacinth, these are globular, and, as they are dark blue in colour, resemble little grapes; so the plant has been called grape hyacinth. The hyacinth, or bluebell of English woods, belongs to another branch of the family — the squills. The kind more generally seen in borders is the early-flowering, bright blue Siberian squill, often planted with a somewhat similar flower called the glory of the snow, which came to us from the island of Crete about thirty years ago.

THE AMARYLLIS FAMILY

Another group of bulbous plants comes near to the lilies, but belongs to the amaryllis family. Well-known garden examples of this family include the snowdrop, narcissus, and belladonna lily. The snowdrop is commonly grown in gardens, though of late years the larger Elwes snowdrop often takes its place.

This comes from Asia Minor, and has only been known to us since 1875. Of narcissi we have not only the wild daffodil and many cultivated improvements of it, but the jonquil, the poet's narcissus, or pheasant's eye, the polyanthus narcissus, and a host of others.

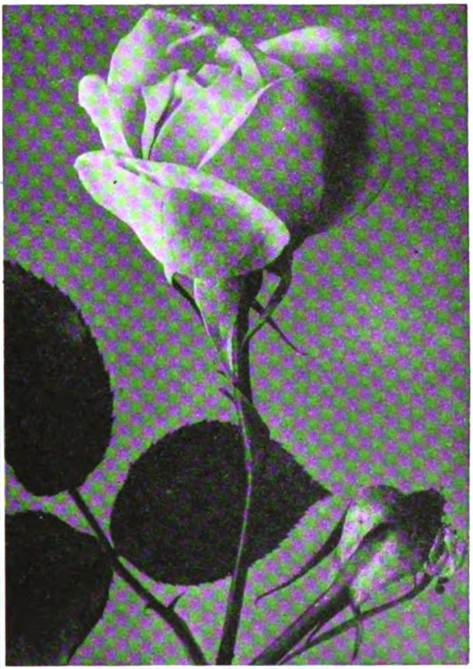
THE IRIS FAMILY

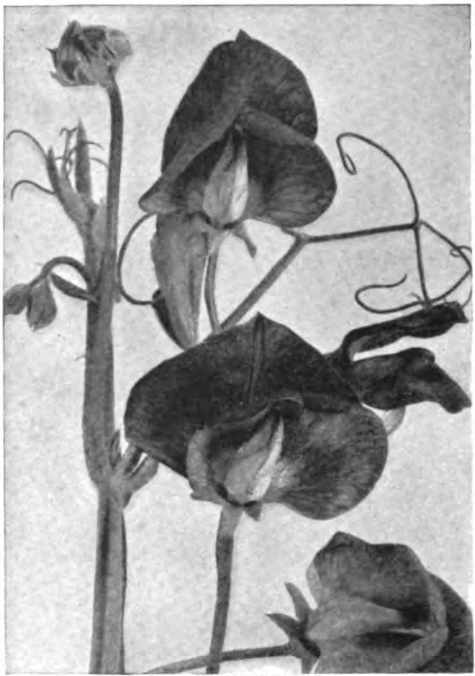
Then there are so-called bulbous plants whose rootstocks are solid corms, instead of being made up of fleshy scales as the real bulbs are. These belong to the flag, or iris, family, and include the crocus and gladiolus. The flags are a large group, which includes the English and Spanish irises, springing from underground corms and having narrow rush-like leaves, and the German irises, which have very thick rootstocks that creep along the surface, with broad, sword-shaped leaves. All are beautiful, and many of them have flowers as strikingly coloured as the tropical orchids. Every one remembers how brilliant the marshes are in June, when the blue flags are in bloom. When transplanted to a damp place in the garden, they will bloom quite as effectively. The streams of England reflect the golden glow of their yellow flags, which are often cultivated, while Japan sends us enormous flowers of the most peculiar colours. Our garden crocuses — white, purple, blue, and yellow — are cultivated forms of species that are found growing wild in the south of Europe and Asia, while the gladioli cultivated in America come chiefly from South America.

THE RED ROSE
The rose is the flower of flowers. No other blossom is so delightful to the eye or so fragrant as a really fine rose, and of all varieties those of a deep, rich red, like the one shown here, are the most beautiful.

THE MAIDEN'S BLUSH ROSE
After the rich red varieties, the most delightful of roses are those of the delicate shade of pink known as maiden's blush. There are, of course, many kinds of roses with this colour, and the one in this picture is a good example.

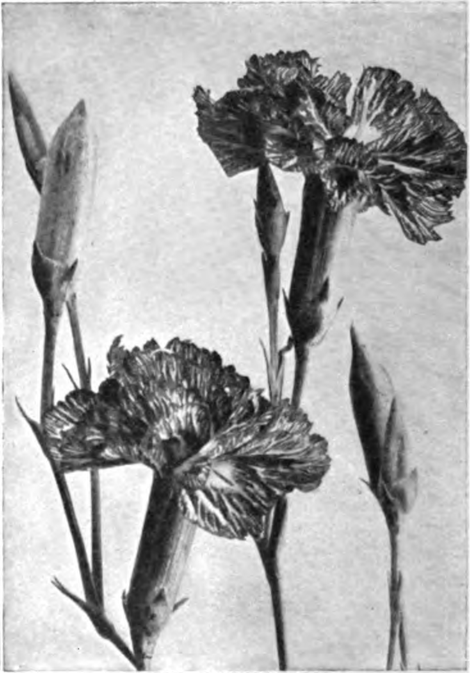
THE RAMBLER ROSE
The rose is the typical English flower, and it never appears more English than when it is seen trailing over the lattice-work portico of some picturesque cottage. **A variety of the rambler rose is best for this purpose.**


THE TEA ROSE
The tea roses, of which this is an example, are now very much in favour with rose-growers on account of their extreme grace and delicacy. The name is given because of a supposed resemblance to the fragrance of tea.



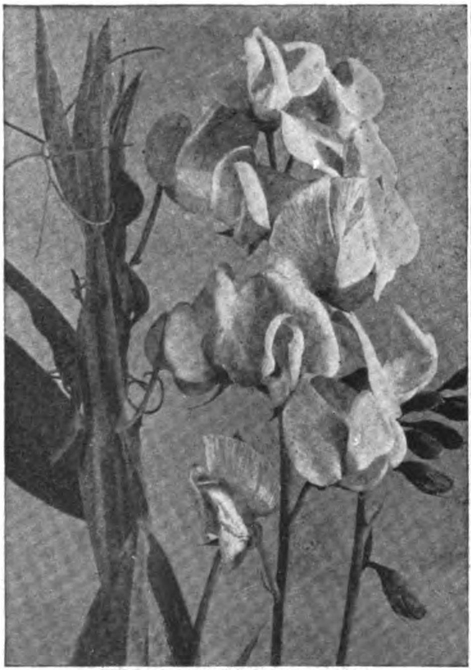
THE SWEET PEA

The sweet pea, which is so popular in our gardens on account of its fragrance and the variety of its colours, grows wild in Sicily. It is very useful to hide an unsightly spot, and forms a good screen for a fence.



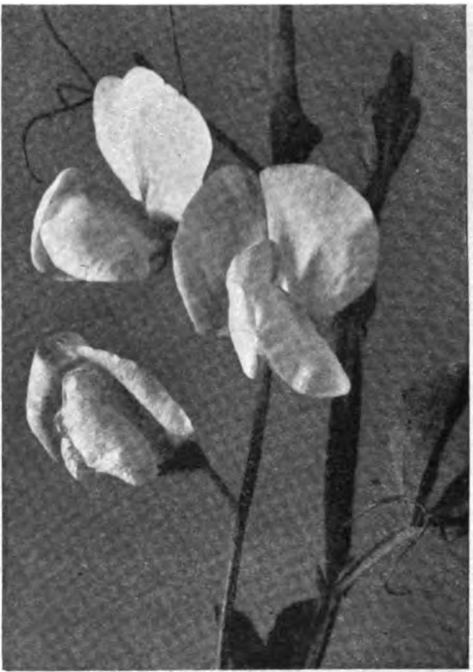
THE CARNATION

The carnation has been a favourite garden flower for about 600 years, and is now grown in a great variety of colours and markings. Owing to its clove-like odour, the crimson carnation is often called the clove.



THE EVERLASTING PEA

This is a very hardy plant and will thrive almost anywhere, even in stony courtyards. Unlike the sweet pea, whose flowers grow in twos or threes on each flower-stalk, the blossoms of this pea come in clusters.



THE WHITE SWEET PEA

The sweet pea is grown in almost every variety of colour, from the deeper shades to the most delicate tints, but perhaps none is so attractive as the white pea, on account of its dainty and beautiful appearance.

THE PINK

The pink is a near relative of the carnation, and is much sought after for the garden, as it is very hardy and at the same time pleasing. Another close relation is the sweet-william. The pink is a very old-fashioned garden flower.

THE IVY-LEAVED GERANIUM

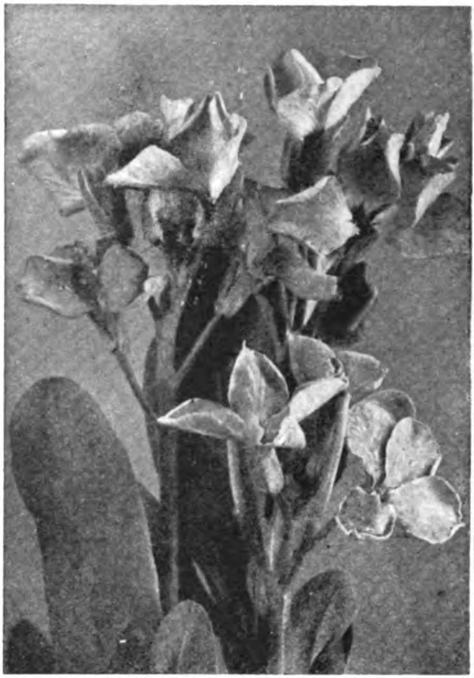
A glance at the leaves in this picture will explain the reason for the name of this geranium. In no other family of plants has the gardener's art produced a greater variety of form and colour in both leaves and flowers.

THE SCARLET GERANIUM

No other plant produces flowers of such a vivid scarlet as the geranium, and it is difficult, in all the vegetable kingdom, to find another object so handsome and striking as a cluster of blossoms of the double scarlet geranium.

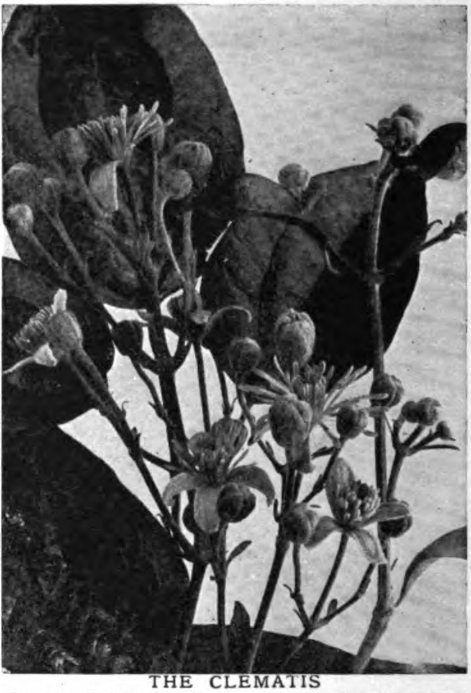
THE BROMPTON STOCK

The numerous varieties of stocks that are now to be obtained have all been grown from one or two wild kinds. The flower shown in the picture is the Brompton stock, and it can be had in purple, scarlet, and white.



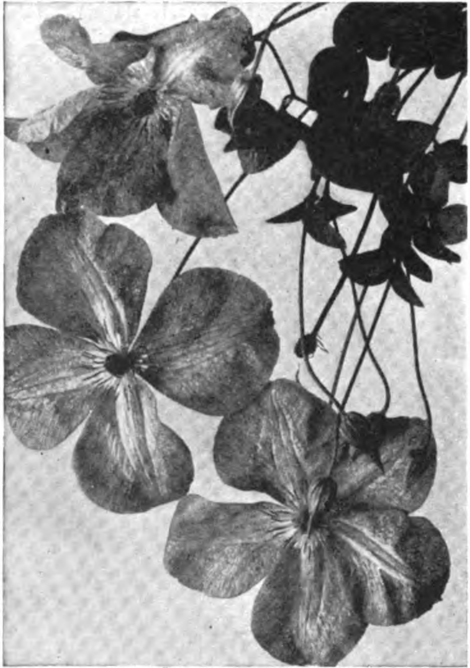
THE TEN-WEEK STOCK

Stocks are found in most gardens, for they are very attractive on account of their varied colours and their masses of bloom. In the west of England the ten-week stock is called the jiloffer, a corruption of gillyflower.



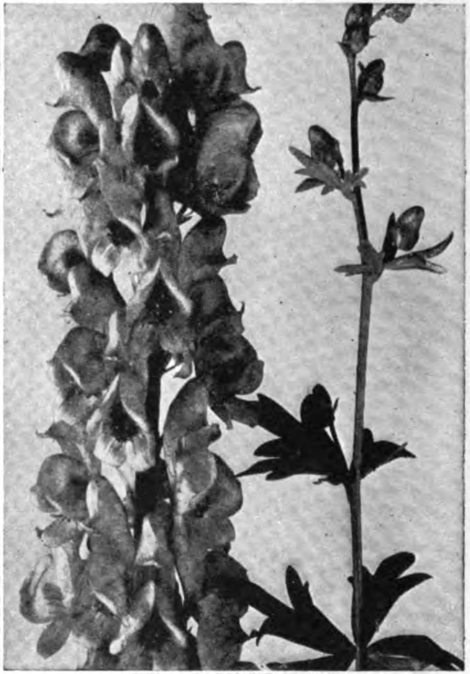
THE CLEMATIS

Among climbing plants there is none more beautiful than the clematis, or virgin's bower, as it is called. The various kinds of clematis vary in size, some growing about a foot high and others having stems fifty feet long.



THE BLUE CLEMATIS

The large-flowered blue clematis, of which there are several kinds, came originally from Japan. It needs a richer soil than the white-flowered varieties, but thrives best in a chalky soil. Clematis looks well upon walls.

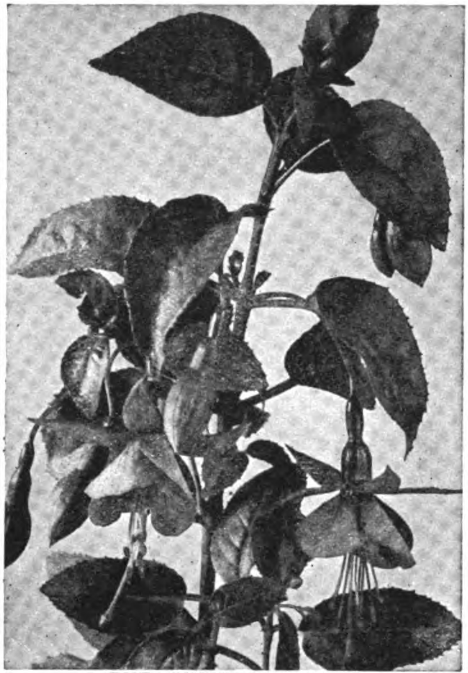


THE MONK'S-HOOD

Monk's-hoods should never be planted where their roots could be dug up and mistaken for the various kinds of eatable roots, for they are very poisonous. The name of the plant refers to the shape of the flowers.

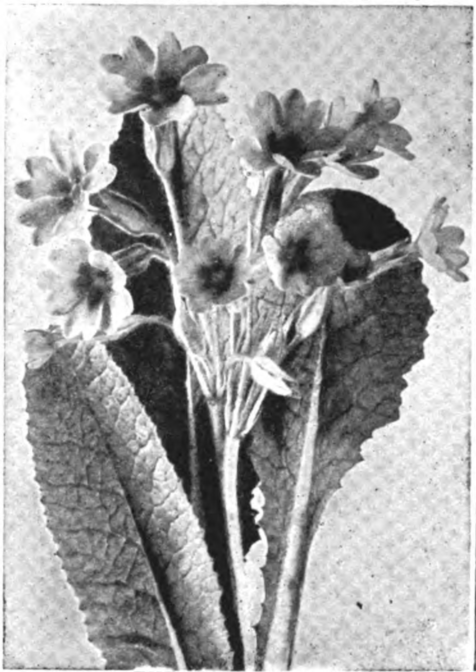
THE DOUBLE FUCHSIA

The fuchsia is sometimes called the lady's eardrop, a reference to the drooping earrings that ladies used to wear. The flower in the picture is a double fuchsia, a beautiful development from the original plant.



THE SINGLE FUCHSIA

This is a single fuchsia, and the plant makes an attractive bush in the genial climate of California, where it is very commonly found in the gardens, a mass of blossom. The fuchsia is named after the German botanist Fuchs.

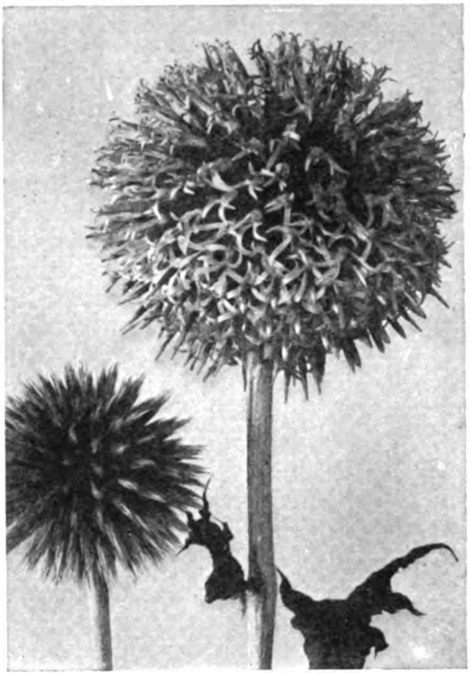


THE POLYANTHUS

Polyanthus means many-flowered, and the plant, which is probably descended from the primrose and the cowslip, has its flowers growing in clusters on a leafless stem. The polyanthus loves moisture and shade.

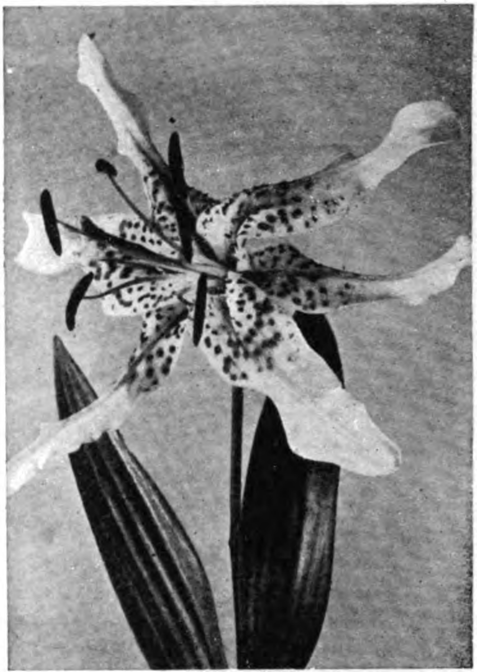
THE SEDUM

There are many kinds of sedum, or stonecrop, that are well worth a place in our gardens. They will grow in almost any soil, and are very easily cultivated. In some districts the sedum is known as midsummer men.



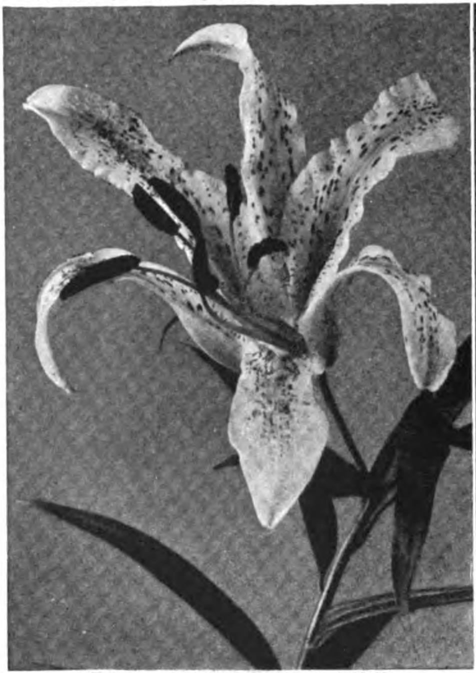
THE GLOBE THISTLE

Some of the wild thistles are very striking plants, but the most ornamental of the whole thistle family is the blue-flowered globe thistle, shown here. It comes from South Russia, and its large, round flower-heads are blue.



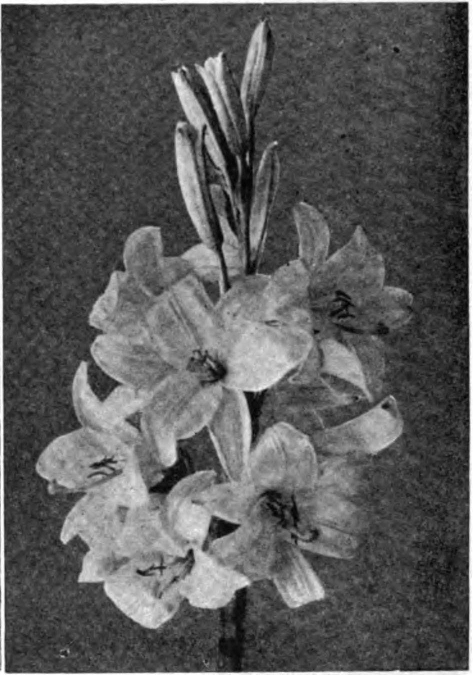
THE LILY

All the lilies are very stately and graceful. Many of them are much alike, but particular varieties are adapted to particular soils and situations. Some are admirably suited for the rock garden, and others for the shrubbery.



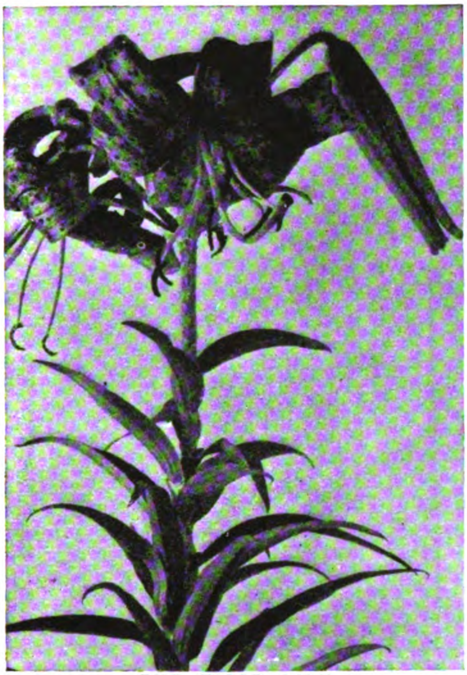
THE GOLDEN-RAYED LILY

This is one of the handsome lilies that have come to us from the East. There used to be a superstition that the health of the household in whose garden this lily grew corresponded with the condition of the lily.



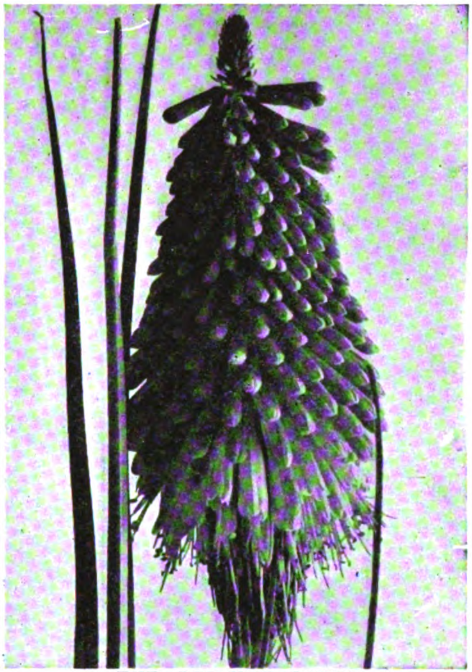
THE MADONNA LILY

The madonna is one of the best-known lilies, and at the same time one of the loveliest. It will thrive well for years if left undisturbed in good soil. It was dedicated to the Virgin Mary, and is also called the lady lily.



THE TIGER LILY

This lily is very stately, and is a great ornament in any garden. It is easily cultivated, and needs a deep, sandy loam with an open but sheltered position. It was brought to England from China about a century ago.



THE RED-HOT POKER

This plant, the kniphofia, is called also the flame flower and torch lily. It is a native of Africa, and is an exceedingly striking plant. Our severe winter weather often kills the plant, or it would be grown more than it is.

THE GLADIOLUS

The gladiolus, or sword lily, is the most beautiful of late garden flowers, and should be grown by all who want attractive gardens in the autumn, for it is very easy to cultivate. It looks well with red-hot pokers

THE VIOLA

This is one of the many pretty little flowers that have been developed by cultivation from the heartsease, or wild pansy, of the field. Violas are well worth growing in the flower-beds of our gardens.

THE MALOPE

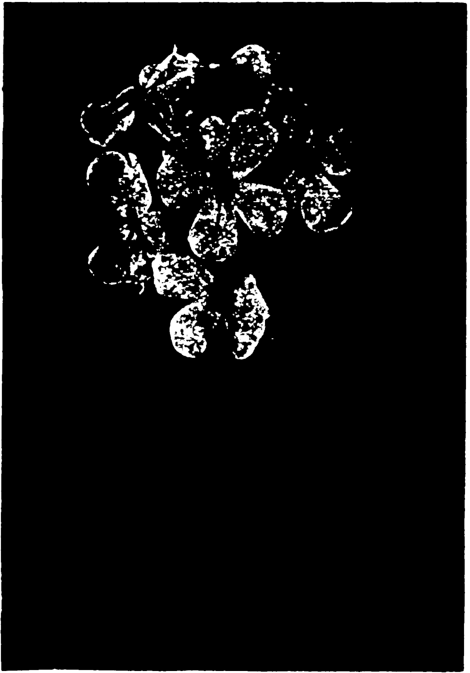
The malope is a showy plant with crimson and white flowers, that are very handsome when massed in groups. The plant grows to a height of about three feet, and the better and richer the soil the finer will be the bloom.

THE CHINA ASTER

China asters, when well tended, always make the garden bright and gay with colour. They should be grown together in masses in a deep, rich soil, and will well repay all the care that may be expended upon them.

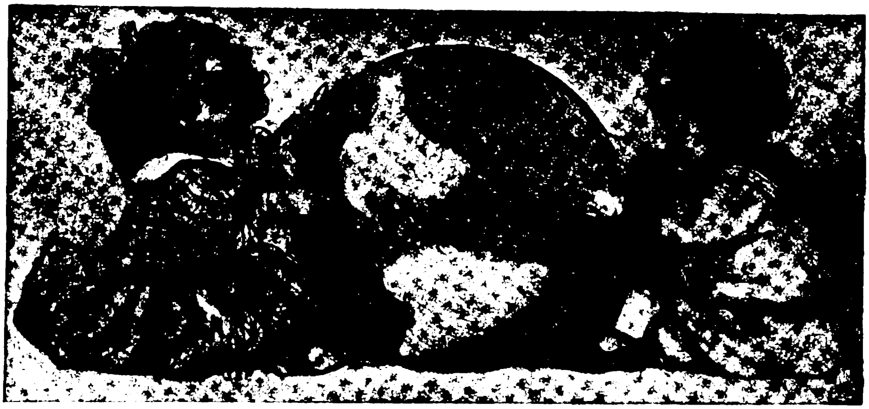
THE MONTBRETIA

This graceful plant will thrive for years on a poor clay soil, and bloom well every year, but it always shows, by finer blossoms, the benefit of a better soil. It is, however, essential that the soil should not be too wet.



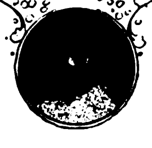
THE DAME'S VIOLET

The dame's violet sometimes grows wild, but only when seeds have been blown or carried from a garden, for it is not really a wild flower. The blossoms are like those of lady's smock, and are very fragrant at evening.



OUR LIVES AND THE NATION

CONTINUED FROM 5135



However far back we go in the history of thought, we find it recognised that man is, as Aristotle called him, a social animal. "None of us liveth to himself, and no man dieth to himself." We are members one of another. No one knows what a solitary human being would be like, for the best of all good reasons, which is that there could not be a solitary human being. Each one of us is part of a great whole. People used to talk of "man before society."

No one, however, can now believe that there ever was a time when man existed and a state of union between different men did not exist; and we are all agreed that Aristotle is right, and that we are social by our very nature. The ancestors of mankind must have been social, and man has been social from the first.

One remarkable result of this, which has, curiously enough, been constantly forgotten, is that no one knows what a single human being unaffected by other human beings would be like. Not only do we not know, but we never can directly know. We are so made that it is quite impossible for a human being to exist at all apart from the influence of other human beings upon him. We come into the world helpless—less able to take care of ourselves than any other creature, animal or vegetable—and we remain helpless for a longer period than any other creature. From our first hour we are dependent upon others, who influence us from the cradle to the grave, so that every one of us is, in some degree, a social product, just as a motor-car is, or a book. We have been partly made by those who have surrounded us, and as no human being can grow up without these influences, it is scarcely worth while even to guess what a human being would be like without them. There could not be such a person.

But we do know that children a few years old have been lost and have managed to live in a wood or forest. As they have grown up we find that such beings have become less than human. They have missed the human companionship which every one of us needs, though, of course, they had it in their earliest years, or they could never have existed. Such persons can only be classed as idiots. Now, the word *idiot* comes from the Greek, and means a person who is by himself and has nothing to do with anyone else, or, as Ruskin puts it, a person who is entirely occupied with his own concerns.

If we take a grown-up, healthy, sane, intelligent human being, and separate him entirely from the company of all other men, he will lose his reason and become less than human. The solitary man becomes insane. All this might be proved and discussed at any length, for it is one of the most important facts in the world. We are members one of another.

THE GREAT TRUTH THAT A NATION IS LIKE A LIVING BODY

We must again go back to Aristotle, and even to Plato, his master, for the next great truth which we must learn—a truth which follows directly from what we have been saying. It is that a nation is not just a number of people, like a heap of bricks or grains of sand, but is a whole—just as a heap of bricks becomes a whole when the bricks are built up to make a house.

We can see that this must be so if every individual is, in part, a product of all the other individuals, and, on his part, helps to produce the others by direct and indirect influences upon them. So we have many phrases to express the idea that, in a sense, a nation is like a great living creature. We call it the body politic, or the social organism, and sometimes figure it as a noble woman—Columbia, for example. This comparison of a nation with the body of a living individual is a very valuable one.

On page 5255 of this book we read that though an atom is a whole, yet it is made up of parts which are called electrons, and we are only now beginning to understand the atom because the key to every fact about it lies in the nature of the electrons that make it.

On a higher plane we learn that the living body, though it is a whole, is made up of parts called cells, which are themselves alive; and we have only begun to understand the living body since we have begun to learn something about the nature of the cells which make it up.

HOW OUR OWN BODY HELPS US TO UNDERSTAND THE LIFE OF A NATION

So, also, we may imagine that the nation is a living body, but that we shall never really understand the life of a nation until we understand the nature of the persons who make it up. That is the great key which governs all true thinking—not the talk of politicians, but real thinking—about a nation. And that is why we have been very carefully studying the lives, the bodies, and the minds of ourselves, so as to lead up to the study of the nation of which each one of us is a part.

Now let us go a little more carefully into this wonderful comparison between an individual and a nation made up of many individuals.

When we learn the history of life, we find that living creatures were at first made of only one cell each; then of a few cells, which stayed together and were all alike; then of cells, few or many, running at last into billions of billions, which became different from one another. It is in this difference that the possibility of progress lay, some cells doing one thing and others doing another. The same is true in a nation, only it was noticed in the case of a nation long before it was understood in the case of a living body. In a nation we call this the division of labour.

THE DIVISION OF LABOUR, WITHOUT WHICH MEN AND NATIONS COULD NOT LIVE

This division of labour does not mean merely that when there is a lot of water to be carried from one place to another the labour is just divided between ten men, each of whom takes a bucket and runs backwards and forwards. It means, so to speak, that one man grows india-rubber and another manufactures india-rubber pipes; that another gets iron out of the earth, while another makes iron into taps; so that by this kind of division of labour the work is done far more easily than if all men did the same thing. Now, when a great Frenchman was studying the life of the body, he saw that this division of labour occurs in the individual body, just as it does in the body politic; and so he called it the *physiological division of labour*, by which name it has been known ever since.

Now with this key we can begin to understand many things. A nation has to live just as the body has to live; it has to have men to guide it, and the men who guide a nation correspond to the nerve-cells of the brain. It has to have men who make special things for the nation, and the manufacturers correspond to the gland-cells of the body. It has to have people like soldiers, scavengers, doctors, and nurses to protect it from enemies inside and outside; and the bodies of these protectors correspond to the white cells of the blood, which kill microbes, remove dirt from the air-passages, and carry medicine and food to the parts of the body that have been injured. There is no end to these wonderful comparisons, but we must pass on to see the deeper meaning of them.

The body could not exist without the division of labour; and the division of labour could not be carried on as it is unless the cells of the body were different. A nerve-cell cannot do the work of a red blood-cell, nor a red blood-cell that of a nerve-cell; and neither of them can do the work of a muscle-cell; and any of the three would make a very poor cell to cover the outside of our teeth. So we might go on endlessly.

Now, the point is that this is precisely true of a nation. If all the cells of the body were born the same, so to speak, it could never be a body at all; and if all men were born exactly the same they could never make a nation.

THE DIFFERENCES IN PEOPLE THAT MAKE FOR THE GOOD OF THE NATION

Fortunately, all men are born more or less different; our faces are all different, and it is now beginning to be seen that this difference in our faces corresponds to deeper differences which are in all of us. No doubt it is true, or ought to be, that we are all born equal in the sense that we all ought to have an equal chance, but nothing is more ridiculously untrue than to suppose that all men are by nature born equal, unless it be to suppose that they are by nature born the same.

We are all born different, and as for equality, we are born on very different levels by nature. But this is necessary and right. One man has great strength and endurance, but nothing else; we cannot say that he is equal to a man who is a great thinker. But that great thinker may be very weak and puny. Each can help the other. Ages ago the Emperor Marcus Aurelius declared that instead of disliking or despising people who are different from ourselves, we ought to say "the universe has need of them." A more modern way of saying this is that "it takes all sorts to make a world." It certainly takes all sorts of cells to make a human body, and in the same way, it takes all sorts of human beings to make a nation.

One of the first needs for any nation is to realise these truths. We must learn that we are all dependent upon one another, both as regards our particular natures and as regards the particular kind of work that we do.

THE FIRST AND GREATEST DIVISION OF LABOUR THAT MUST ENDURE FOR EVER

Ages ago, in rude and savage tribes, though there always was division of labour, there was not nearly so much as there is now. The first and greatest and most eternal division of labour, which is that between men and women, is older than mankind and must endure for ever.

There was also a certain amount of division of labour between young and old, between the skilful and the strong, between the enterprising and the stay-at-homes. But just as the difference between a low form of animal and a high form of animal is to be found in the greater division of labour in the higher animal, in just the same way we find that high nations cannot exist without ever more and more division of labour.

More and more people become specialists, just as the five or six different kinds of white blood-cells are specialists, and all white blood-cells taken together are specialists as compared with other blood-cells, and all blood-cells together as compared with the rest of the body. This division of labour, or making of specialists, is a very great fact.

We all know the famous old story of the revolt in the body, when the other parts of it said that the stomach did no part of the work and got all the food. Of course, we see that that would be a very foolish thing for the body.

WHAT WOULD HAPPEN IF THE PARTS OF OUR BODIES QUARRELLED

It would be just as bad for the body if the stomach revolted and said it would keep all the food it received. The stomach would get indigestion and the rest of the body would starve. That is exactly what happens when rich men seize all the wealth and will not use it for the rest of the community. And so we learn that one part of the body and one kind of cells ought not to be at enmity with another part of the body and another kind of cells. "A house divided against itself cannot stand." Doctors know that perfect health is perfect harmony. It means that every part of the body, like every part of a wonderful machine, is serving all the rest and is being served by all the rest, because it is doing its own work rightly in beautiful harmony with all the others.

THE ENEMY OF THE NATION WHO STANDS FOR ONLY A PART OF IT

The great truth we learn from this is that he is an enemy of the nation who stands for any part of it against the others—unless, of course, the others are in the first place injuring it. It must be an injury to the social body to set religion against religion, or class against class, or school against school.

In some distant day, the dawn of which can only be seen by the prophet's eye, the eye of faith and hope, men will learn that what is true of one nation is true also of the whole of the nations which we call mankind. They will learn that just as to oppose one part of the body against another is to injure it or to destroy it, just as strikes or labour wars, in setting one class against another, injure the social body, so wars between nations injure that mightiest body of all which we call humanity. But this will not be learnt until statesmen and soldiers and churches give up fighting for themselves and care only for those whom they profess to serve.

We have now learnt the great truth that civilisation and human progress depend upon human variety. This has the tremendous meaning, which no nation has yet realised, that, instead of taking all our children and giving them all the same education, we must find out what each child is best fitted for, and we must educate him for that.

WHY EVERY CHILD SHOULD BE EDUCATED FOR THE THING HE CAN DO BEST

The great reason why education is such a failure is not only that we set about it, as a rule, in altogether the wrong way, but also that we think we have merely to do something like making a number of coins out of metal by stamping it with dies, as they do at the Mint. But as two children may differ from each other certainly not less widely than a nerve-cell and a red blood-corpuscle differ, it is plain that if we give them exactly the same education, however skilful and devoted we are, we cannot be doing the best for both. The mightiest reform of education in the future—a reform which will help to make the new earth of men's holiest and truest dreams—will depend upon our realising that all children are different, and that the best for the child and the best for mankind is to find out what the child is best fitted for, and to educate him for that. More generally and worthily stated, this means that for the self and for society alike our duty is to develop as nearly as possible towards perfection the special nature of each child.

Of course, there are certain things which every human being, just because he is a human being, ought to know and ought to be able to do. Everyone ought to be able to read and write, for we are all social products and producers of each other, and reading and writing are the great instruments by which we affect each other, by which the wisdom of the dead benefits us, and by which our wisdom, if we have any, will benefit and mould and live in the far distant future when we are dead.

HOW A NATION'S STRENGTH DEPENDS UPON THE LIFE OF ITS CHILDREN

But it is another thing to say that all boys learning to read should read the same things. One is interested in science, another in poetry, another in mathematics, another would prefer to read books only for necessary purposes, while he would love to read the face of Nature—the sky and the soil. Why should we try to make a bad clerk of him when he might be a splendid farmer, taming the light and the soil and the water and the breeze to his will, making food for the life of himself and his nation? But this also is a great subject and would require many volumes to deal with fully.

As we go on thinking about a nation we shall see that there is one fact which is more important than all others. It is that all the individuals which make up this living being—the nation—die, and yet its life persists. This brings us to the great truth which stares us in the face, and yet which not one person in millions has really seen, that the destiny of a nation depends upon its parenthood and childhood. It depends partly upon the number of children that are born, partly upon their quality, and partly upon the care that is taken of them. Part of this great truth is already known and acted upon in some places.

HELEN KELLER

Most boys and girls think that their lots are very hard indeed when they have to spend the pleasant, spring mornings in the schoolroom, poring over their lessons, when the air and the sunshine are calling to them to come out-of-doors and play. But how many of you have ever thought how blessed you are to have the ears to hear the teacher's voice, the eyes to see the "stupid" figures on the blackboard, the voices to ask and answer questions? And yet one little girl without all these things, being deaf and dumb and blind, has learned as much and more than many others with all their powers. Her name is Helen Keller.

CHILDHOOD DAYS

Helen was not born blind and deaf and dumb, but like other healthy, normal, young children, she laughed, and romped and shouted in the sunshine, until one day a dread fever seized her, and when she rose from her bed, the white heat of its flame had burned away the sight from her eyes, the hearing from her ears and the speech from her tongue. Soon she was strong and healthy again in body, but with what a terrible difference! Her communication with the noisy, happy, busy world about her had been cut off.

Of this time in her life, as a little girl, Helen Keller afterward wrote:

"My inner life, then, was a blank without past, present or future; without hope or anticipation, without wonder, or joy, or faith.

"It was not night — it was not day,

. . . .

But vacancy absorbing space,
And fixedness, without a place;
There was no stars — no earth — no time,
No check — no change — no good — no crime."

As the years passed by, the necessity for some adequate means of communication with those about her became imperative, for the growing child's vain efforts to express her needs and desires often ended in wild, uncontrolled bursts of passion, — it was the beating of the imprisoned spirit against its bars. Helen's parents began to recognise that something must be done, and that very soon; so they secured a teacher from a deaf and dumb institute by the name of Miss Sullivan.

WONDERFUL MISS SULLIVAN

The morning of the teacher's arrival, she led little Helen into her room and gave her a doll which the blind children at the institution had sent her. Then she slowly spelled into Helen's hand, in the deaf and dumb alphabet, the word "d-o-l-l." The child felt the motions and tried to repeat them, but she clearly did not know to what they referred. In the days that followed, still in that uncomprehending way, Helen learned to spell numbers of short words, such as *cake*, *hat*, *milk*, *spoon*, *candy*, etc. One day the light came suddenly. Miss Sullivan had been trying to explain to her the difference between "w-a-t-e-r" and "m-u-g," but the child had persisted in getting them mixed. Later on the two walked down to the well-house, where Miss Sullivan pumped the mug full of water. As the cold liquid splashed over Helen's hand, the teacher quickly spelled the word "w-a-t-e-r." The child dropped the mug with a crash, as a new light suddenly illuminated her little face. She knew for the first time that everything had a name. From this time on little Helen Keller's education proceeded by leaps and bounds, for the child, naturally bright and quick-witted, thirsted for information and poured forth questions ceaselessly. Miss Sullivan cleverly led the child on, step by step, never missing an opportunity to unfold and enrich her active mind.

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LEARNING TO TALK AND READ

When Helen was ten, she began to learn to talk. It was a long and wearisome task, for she could not see the lips of her teacher, as a child who is merely deaf and dumb can do, but slowly struggling along step by step, she began to make her way out of her "prison of silence." Later Miss Keller wrote of the almost pathetic joy this gave her. "No deaf child," she says, "who has earnestly tried to speak the words which he has never heard can forget the thrill of surprise, the joy of the discovery which came over him when he uttered his first word. Only such a one can appreciate the eagerness with which I talked to my toys, to stones, trees, birds and dumb animals, or the delight I felt when my dogs obeyed my commands."

Meanwhile Helen had also been learning to read in the Braille, or raised-letter type, and she soon took up various studies, — History, French and German. In 1896 she went to the Cambridge School for Young Ladies to prepare for Radcliffe. Miss Sullivan read all the books to her, and accompanied her to the classes, where she spelled into her hand all that was said; for it was impossible for teachers to give the afflicted girl special instruction. The bravery and patient persistence of Helen under all her handicaps brought its reward. In 1899 she successfully passed the final examinations for Radcliffe College.

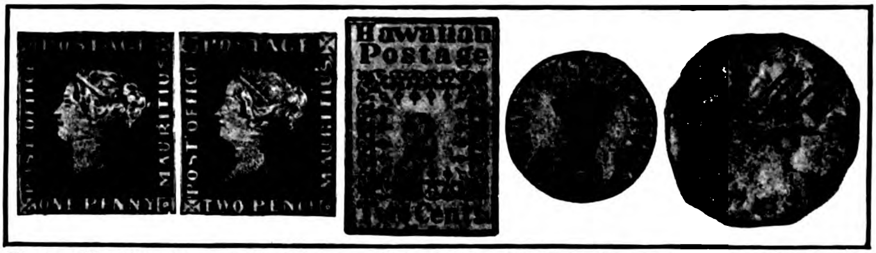
THE LITTLE GIRL BECOMES AN ACCOMPLISHED WOMAN

But though the struggle to enter college was ended, the struggle to keep up with her class in the regular college course had just begun. Not an easy thing for a bright girl with all her normal faculties, it was trebly hard for Helen Keller; but her ambition and courage spurred her on to surmount all difficulties, and she graduated with her class with a very good record.

Miss Keller has written several books and numerous articles, and everywhere she goes she is greeted and spoken of as a highly intellectual woman, with a clear brain and remarkable insight. Some day when you read the wonderful poem of The Stone Wall, you will marvel how one who had no eyesight could possibly describe to you, just as though she saw it all, the light and shadow and colour playing over the Old Stone Wall.

In one of her books she speaks of an exquisite pleasure that comes to her through the touch of her hand: "Whatever moves me, whatever thrills me, is as a hand that touches me in the dark, and that touch is my reality. I have accumulated by means of touch. The delicate tremble of a butterfly's wings in my hand, the soft petals of violets curling in the cool folds of their leaves or lifting sweetly out of the meadow-grass, the clear, firm outline of face and limb, the smooth arch of a horse's neck and the velvety touch of his nose — all these, and a thousand resultant combinations, which take shape in my mind, constitute my world."

Yet this clever, happy woman was once a little girl shut up within the four walls of her infirmities. It was the wisdom of her teacher and the eager desire for knowledge in the heart of the girl herself that wrought this seeming miracle; and the next time you are grumbling over the "tiresomeness" of your lessons, it would be well to think of the little girl who conquered every one of them and yet who had neither ears, nor eyes, nor tongue with which to do it.



The two Maritius stamps on the left were sold for $9,500. The Hawaiian stamp was bought for $3,500 and the Moldavian stamp next to it for $1,375. The British Guinea stamp on the right realised $2,500.

A COLLECTION OF STAMPS

CONTINUED FROM 5202

THE collecting of American and foreign postage stamps is a hobby that is both interesting and instructive, and a really fine collection containing hundreds, and perhaps thousands, of stamps is a thing of artistic beauty, for many of the stamps issued by different countries have artistic designs and are beautifully engraved. Let us think for a moment of some of the ways in which we may learn from a collection of stamps.

In the first place we shall get to know a great deal of geography in a very pleasant way. The sorting up of our stamps into their various countries, and the placing of the stamps of colonies under the motherlands to which they belong, will fix in our minds a great deal of geographical knowledge.

Then in the second place we shall get to know a number of foreign words. There are the names by which the different countries are known in the countries themselves, and the coins of the various lands as represented by the values set forth on the stamps. We shall also learn much history from our postage-stamps, for it has become the custom in many countries of late years to enlarge the size of the stamps, and to place on them various scenes and incidents in the history of the country.

Further, we shall get to know what some of the countries are like, for many of the stamps have pictures of cities, or mountains, or other scenes in the countries. Finally, we shall learn the emblems of many of the lands from the stamps, as, for instance, the cross of Switzerland. But with all this, the advantages of stamp-collecting are not exhausted. For quite as important as anything that has been mentioned, if not more so, is the fact that we learn, in the classifying and arranging of our collection, patience and order and neatness.

Stamp-collecting is a hobby that need cost nothing, and yet may cost thousands of dollars. There are some rare stamps that cost originally 2c. or 4c., and can now only be purchased for nearly $5,000 each, and a collection like one in the British Museum is estimated to be worth at least $500,000. But while this is the case, any boy or girl can begin collecting at once without spending a penny.

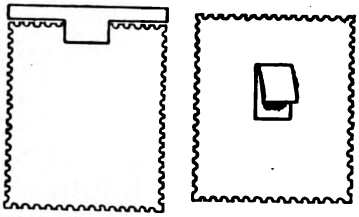
The ordinary stamps that we use for our newspapers and letters and parcels, the one cent, two cent, five cent stamps, and so on, will all be needed for our collection, so we can begin by getting good specimens of these. No doubt we have some friends in offices where foreign letters are being received more or less frequently, and we should ask them to save us any foreign stamps that they may get and do not want for themselves.

Then perhaps we have friends abroad, and we should write to them and ask if they could send us from time to time a batch of used stamps of the land they are in. In some or all of these ways we shall begin to form a collection of stamps without having to spend anything whatever upon it.

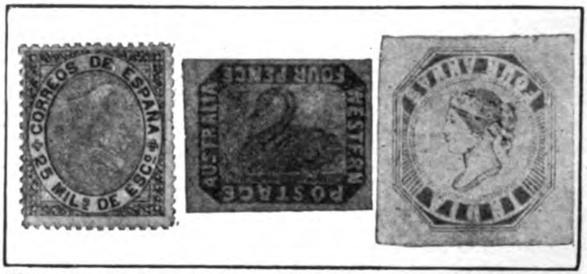
But as we get interested in our hobby we shall be glad to spend some of our pocket-money in adding to our collection. Our earliest purchases can be ten and quarter packets of stamps, to be obtained at a responsible stationer's or stamp-dealer's shop, and although we must not expect to obtain in this way any valuable specimens, we shall find that the cheap packets will, until our collection has attained a considerable size, constantly provide new varieties for us. The duplicates will come in useful for exchanging with other collectors, who will be glad to give us stamps that we do not possess in return for any duplicates of ours that they may not have.

Of course, if we can afford them, the more expensive packets of stamps that are sold will contain more valuable varieties than the cheaper packets, and will fill up many vacancies in our collection. But we must be sure to buy these packets only from reputable dealers, as forged stamps are sometimes found in the more expensive packets.

There are right and wrong ways of collecting stamps, and we should from the beginning set about our hobby in the right way. A mere mass of all kinds of stamps, without order or arrangement, is useless. We must endeavour to obtain complete sets of each particular issue of stamps, as, for instance, the present King George stamps used in England. It will be easy to get the halfpenny, penny, three-halfpenny stamps, and so on, but when we come to the half-crown and five-shilling stamps, these are less easy to obtain because so few of them are used in comparison with the others. But we must not get discouraged. Sooner or later we shall find an opportunity of filling up the blank places in our collection.

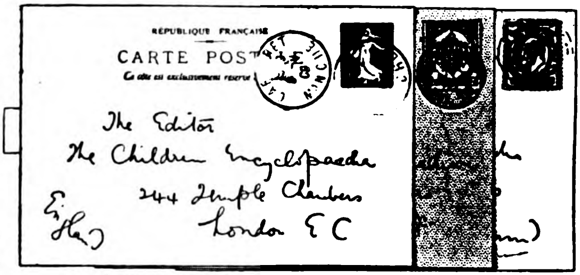

Two different ways of fixing the postage-stamps to the pages of the album.

As with British stamps, so with foreign and colonial. We should endeavour to complete our sets of different issues, putting the various values in their proper places and order. And this brings us to the question of how we are to keep and arrange our collection. There are many excellent albums sold with pages set apart for the different countries and places for the various stamps. They range in price from a quarter to five dollars according to their size, the quality of their binding, and so on.



These three stamps, a Spanish, a West Australian, and an Indian, are **worth $6,000 because, in printing, parts of the designs were by accident turned upside down. The correct issues are worth only a few dimes.**

But it is not necessary to buy one of these ready-made albums. A plain, thick exercise book will do, or two or three thinner books, and, as a matter of fact, it is much the better plan to make our own album. We should rule a border round each page, leaving a margin of about half an inch all round. Then we should rule spaces to receive the stamps, and above each row we should leave about a quarter of an inch for a line stating the date of the issue and other interesting particulars. There are different ways in which we can arrange the countries. Some put them in strictly alphabetical order, irrespective of what part of the world they belong to; but this is bad. Another and better arrangement is to put the United States first, and then to let the other countries follow in the order in which they adopted the postal system. But perhaps the best arrangement of all is to place the United States first, with her colonies and dependencies following, and then to divide the remainder of the book, or the books into four divisions — Europe, Asia, Africa, and Australasia, subdividing these into their various countries in alphabetical order. As to the space that should be allotted to each country, this varies very much. Some countries, like Spain, which have produced a large number of issues, will need seven or eight pages, but for most states three or four pages will be sufficient. There are some countries, like Naples, that no longer exist as separate states, and do not now issue stamps. One page will be sufficient to allow for each of these. It is better to use only one side of each sheet in the book, leaving the other side of the paper blank. It is important that we mount the stamps in the album properly. On no account let us gum or paste the whole of the back down upon the page. This spoils the stamp, takes away from its value, and makes it difficult, if not impossible, to remove the stamp from the album. There are two ways of fixing our stamps upon the page. We may make a little hinge of tissue-paper at the top, as shown in the first picture on this page, gumming only a small piece to the stamp itself; or we may double a little piece of paper and stick one part to the stamp, and the other to the page. Either of these plans is good, and does no damage to the stamp, making it easily removable, although holding it securely. It is, of course, essential that we do not use a gum or paste containing any chemical that will damage the stamps.



The proper way to fasten postcards in the album

Moisture spoils the colour of a few stamps, particularly some Russian issues, but it is by moisture that we have to remove most stamps from the paper on which they are stuck; for stamps should not be put into the album while they have paper adhering to them.

To remove the paper take a saucer of water, slightly warmed, and lay the stamp on the water, face upwards, taking special care not to wet the surface. The stamp will curl up, and then straighten out again, when it should be removed, dried gently, first in a cloth and then in blotting-paper. It is now ready for operating upon, and with great care we should remove with a penknife the paper that sticks to the back. It is important that we should not damage the edge, or perforation, of the stamp in any way, as such damage greatly spoils the value of a stamp. Some rare specimens would be worth hundreds of dollars less if their perforations were torn off.

Stamped envelopes—that is, envelopes which have the stamp impressed upon them—and postcards, and newspaper wrappers, should be preserved complete, and the stamps should on no account be cut off. It is best to have another book for these, and, to save space, they may be stuck in overlapping one another, as shown in the bottom picture on page 5288. The envelopes, cards, or wrappers should not be folded, as this spoils their appearance and also their value.

As we make progress with our collection we shall probably put aside some of our pocket-money to buy single stamps that we need. There are many responsible and respectable dealers who issue catalogues, but we must be on the look-out for forged specimens, for there are many about. They can generally be recognised by their bad printing, and by the spurious postmark which is generally made to appear at one corner. Then many stamps have been reprinted from the old dies after the issue has ceased to be in circulation. These are of little or no value, and they can often be recognised by the indistinct lines of the design, the dies having been more or less worn out when they were printed.

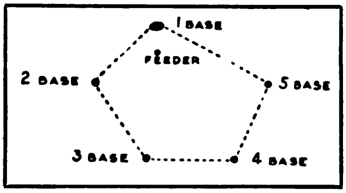
Of course, the rarer stamps cost very large sums of money, but we may by accident come across a valuable specimen now and again, which can be obtained for very little. Occasionally bargains are obtained for a few cents—that is, a rare stamp is found in a cheap packet, or is purchased for a cent or two. Sometimes, too, a friend who has had a few old stamps stored away for a long time may give them to us, and among such a batch we may sometimes find some really valuable specimens.

Some stamps, of course, realise fabulous amounts at sales, as may be seen by the pictures of some of the more valuable stamps that are given in these pages. As will be seen, stamps that cost originally a few cents are now worth many hundreds of dollars.

In conclusion, we may mention a few of the technical terms that are used by stamp-collectors and that we ought to know. An envelope stamp is a stamp printed on an envelope. An overprint is anything added after a stamp has already been printed. This is sometimes done to render it suitable for some particular use. Perforations are the little holes cut between stamps to enable them to be torn apart easily. A surcharge is a mark, or figure, or word, added to a stamp after it is printed to change its value. The watermark is a design in the substance of the paper which may be seen by holding the stamp up to the light. Finally, the proper name for the study of postage-stamps is philately, and a stamp-collector is a philatelist.

A GAME THAT CAME BEFORE BASEBALL

THE equipment for playing the game of rounders is of a very modest description. A bat is wanted. A tennis-racket will do excellently, or a small baseball-bat. If the tennis-bat or the small bat be unavailable, then a small, flat piece of wood, say, a board from a small box, with one end cut away to do duty for a handle, will do. A ball is required—a soft india-rubber ball of good quality. In playing the game, five bases are marked out by upright sticks or stones. They should be about forty feet apart. Any number can play, but the players must divide into two sides. The first batsman takes his stand at base 1 with his partners in a row behind him. The feeder, a player from the opposite side, takes his place at the spot marked in the picture, and pitches the ball to the batsman. The rest of the enemy are spread about the field. Directly the ball is hit, the batsman drops his club and runs to base 2. Should there be time he may continue the run to base 3, but in doing so there is a risk of one of the opposite players throwing back the ball and hitting him while between the bases, in which case he would be out.



The ground for rounders

If he hits the ball to such a distance that there is time for him to run round all five bases before it is recovered, he may take up the bat again. But if he runs only to base 2, the next player behind him becomes batsman.

If the ball, after being struck by the batsman, is caught by the feeder or one of the fielders, the batsman is out. If he tries to strike the ball, but misses it, he is out, and the next player takes his place. Sometimes there may be one player standing at each base, and every time the ball is struck each player must run on to the next base. Thus the player at base No. 2 runs to base No. 3, the player at base No. 3 to base No. 4, and so on. No two players can stand at one base. The game is won by the side that gets the greatest number of players back to the first base without being out.

LIVING WAXWORKS AT HOME

A VERY interesting and enjoyable change from the ordinary games of an evening party is to provide a series of *tableaux vivants*, or living pictures. A number of those present dress up, and having arranged themselves in a group representing some historical scene, or some incident from a novel, stand perfectly still for a few moments while the rest of the party look on. As an additional attraction, it may be left to the onlookers to guess what the scene represents.

Some very effective tableaux may be arranged at no expense, tablecloths, shawls, quilts, and so on, providing all the costumes necessary. Scenes from Shakespeare, such as the trial scene in the Merchant of Venice, or the death of Cæsar in Julius Cæsar, provide good incidents for representation; and even a succession of single characters from Shakespeare or Dickens are also very interesting, and with a little ingenuity these figures can be made up. We find some hints upon how to dress up on page 5195.

Then again, well-known scenes from the Arabian Nights or other familiar fairy tales give ample scope to those taking part in, or arranging, the tableaux.

A pleasant variation on the more serious attempts at living pictures is to give humorous tableaux, and to leave the spectators to guess what they represent. The more grotesque the costumes and apparatus used, the more fun and amusement will be caused, and the more hearty the laughter as the curtains are drawn aside to reveal each succeeding group.

Almost any incident in English or American history can thus be represented. For instance, a suitable incident to portray would be Sir Walter Raleigh placing his cloak upon the ground for Queen Elizabeth to walk over. Neck frills for the queen and the knight, such as were worn at the period in which they lived, can easily be made in a few minutes from a newspaper by using a pair of scissors.

Columbus discovering America can be shown in this way. Take an ordinary bath, or turn a table upside down to represent the boat. Let Columbus stand in the front of the bath shading his eyes with his hands, and other characters should also sit in the ship craning their necks to catch a glimpse of the distant land, which may be indicated by a little stars and stripes flag.

These two incidents will give some idea of the possibilities of humorous tableaux. A whole host of incidents from history will at once suggest themselves. King John signing Magna Charta, the tea being thrown into Boston Harbour, King Charles II. hiding in an oak-tree, Sir Francis Drake playing bowls on Plymouth Hoe, and such scenes, are suitable. The last named suggests the possibility of arranging a series of humorous representations of well-known pictures. There is the famous Drake picture which appears on page 849 of this book, and, indeed, the Children's Encyclopædia is full of historical pictures that would lend themselves to this treatment.

A series of tableaux provide plenty of scope for real ingenuity on the part of those arranging and taking part in them; and certainly, if they are well executed, there is no more popular feature of an evening party. Great fun is caused by the attempts to guess the humorous representations, and in the matter of dressing up, the ludicrous may be cleverly combined with the historical.

All the performers must keep absolutely still, and their faces must not wear the suspicion of a smile. The success of the living pictures depends upon the statue-like behaviour of the performers taking part.

JUDGING DISTANCES IN TOWN & COUNTRY

IT is always useful to be able to judge distances, especially when we are in the country, and it is remarkable with what accuracy this may be done with a little practice. When two or more boys are out in the fields or in a park, it is a very good pastime to arrange a competition to see who can judge distances most correctly.

Of course, at first it takes a minute or two to think out how far away a certain person, a tree, or a building, may be, but as we get more practice, so we shall be able to judge in a moment what, roughly, is the distance away from us of the things we see.

Distances never look so great in the country as they do in town, for the reason that objects appear nearer than they are when the light is bright, and, of course, the light is always better in the country than in towns, because it is neither obscured by buildings nor rendered dull by a pall of smoky air overhead. Across water, objects always appear nearer than they are, and snow on the ground also has the effect of lessening, to the eye, the distance of anything. If we are looking at something across a valley, or when we are sitting on the ground, the distance appears greater than it really is, and if the object looked at is against a background of the same colour as itself, it looks farther away than it really is.

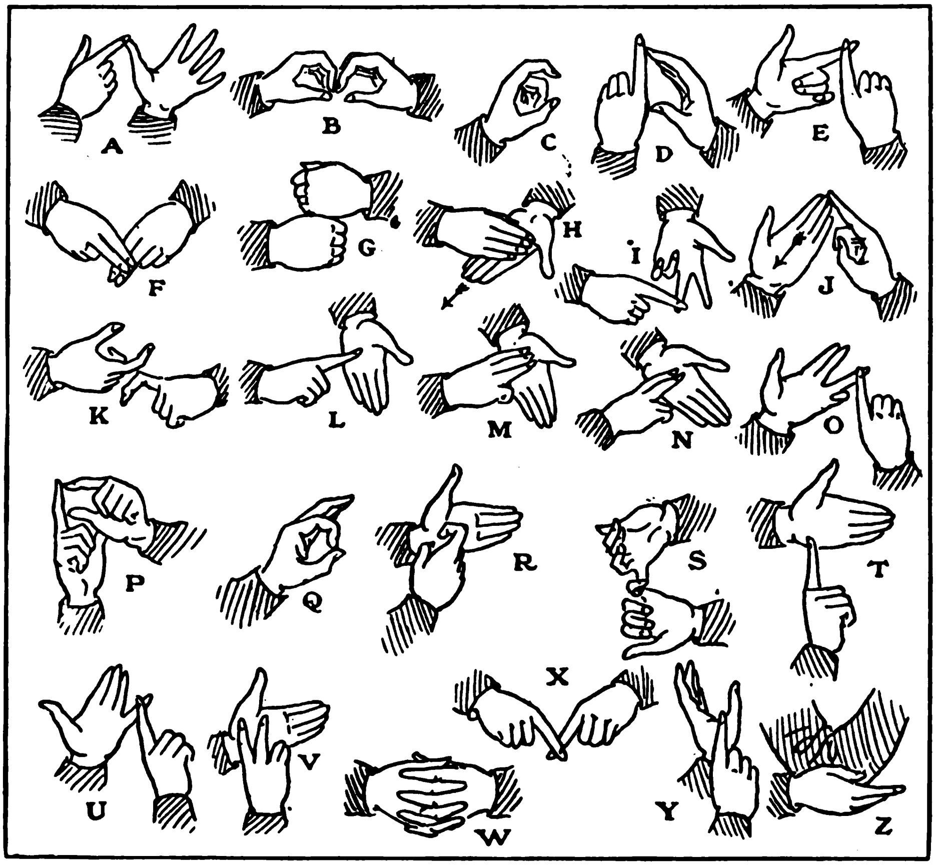
The way to learn to judge distances is to begin with things quite near, and to compare these with things nearer still, the distance of which is pretty obvious. Then, gradually, we can go on to try our skill with things that are farther off.

It is interesting to remember that at fifty yards the mouth and eyes of a man can be seen, at a hundred yards the eyes are mere dots, at two hundred yards the buttons of a coat can be seen, at three hundred yards the face can be distinguished, and at four hundred yards the legs are seen moving. At five hundred yards the colour of the clothes is visible. These useful points are taught to soldiers in some of the European armies, and it is well worth our while to commit these few facts to memory, so that we may use them when we are out walking.

HOW TO TALK TO THE DEAF AND DUMB

The scientific method of educating the deaf and dumb, or, as they are more accurately called, deaf mutes, is by word of mouth, and they are taught to watch the lips of the person speaking to them, and from the movements of the mouth to understand what he is saying. It is amazing with what skill a well-trained deaf mute is able to follow a conversation in this way.

The older method of communicating with persons afflicted in this way was by speaking with the hands, and as there are still many thousands of deaf mutes who know of no other method of carrying on a conversation, it will be well if every boy and girl learns the deaf and dumb alphabet, as it is called, so that, should the necessity arise, they will not be cut off from all communication with the deaf person.



THE ALPHABET, FORMED BY THE HANDS, WHICH IS USED IN TALKING TO DEAF MUTES

The complete alphabet is given on this page, and can be easily learnt from the pictures. In every case, with the exception of H and J, the hands are stationary while in position to form the letter. In the case of H, the whole of the right hand is moved down the left palm in the direction of the arrow, and to form J the right forefinger is drawn down the left hand from the tip of the middle finger, as indicated in the picture by an arrow. In talking to a deaf mute, the words are spelt out, and it might seem that this would be a very tedious and lengthy process. As a matter of fact, it is astonishing with what rapidity a conversation can be carried on when those using the sign language are skilful and well practised in the art.

One may sometimes see at a place of worship a little group of deaf mutes seated in a corner of the church, with an interpreter giving in the finger language the substance, at any rate, of the sermon. To make a break between the words it is common to separate the hands and jerk them downwards, or to make the motion of snapping the fingers. Of course, those who talk much with deaf mutes in this way soon acquire a whole number of signs to express well-known words or thoughts without spelling them. For instance, holding up the right thumb means good, and the right little finger signifies bad. To point upwards means God or heaven, and so on. Numbers up to about twenty are denoted by holding up the necessary number of fingers, and larger numbers are usually spelt right out.

THE GAME OF "WHAT IS WRONG?"

SOME games teach us how to use our bodies, and others teach us to use our brains. The game of "What is Wrong?" develops the mind by testing our powers of observation.

We all know that in every house certain things have a regular place. For instance, we may have a clock on the mantelpiece, and standing upon each side of it a vase.

Now, these things usually occupy the same place always. They are never shifted except for cleaning and dusting. That position on the mantelpiece is their recognised place.

We may possibly get so used to seeing a photograph placed at a certain angle upon a certain spot that it seems to become part of the room, and we cannot imagine it in any other place except that which it occupies. We feel sure that if it were shifted to any other spot we should notice the fact at once. In all probability, if, instead of a little thing like a photograph, a large piece of furniture were moved, we should notice it quickly. But it is really wonderful what we do not see, even when we are looking at things, if our mind is not actively concentrated and our power of observation is not acute.

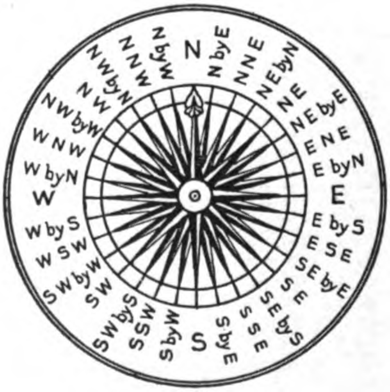
In playing the game of "What is Wrong?" one player stops in the room while all the others go outside the door. The player in the room makes some little alteration in the position of a thing that usually stands upon a certain spot, or is placed in a certain way, and when he admits the other players he asks them what is wrong. The players, as they discover what is wrong, sit down until all have made the discovery or given it up. Then the player who first found out what had been changed remains in the room and moves something in his turn while the others are outside, and so on. Before we begin to play the game, we should fix a certain time, say, two minutes, in which the changed object must be pointed out. If in that time no player succeeds in discovering the thing that has been moved or altered, then the thing is shown, and the players go outside again, the same player remaining in the room and altering the position of something else. If we like we may give points for success. The one who remains in the room scores five points if his alteration is not discovered by any of the others. If, on the other hand, the changed object is discovered, then the first discoverer scores five points. At the end of the play we count up the points, and the player who has scored the greatest number wins the game.

A variation of the game is for the player who remains in the room to change not one object only, but a number. The other players then have more to discover, and there is less constant walking in and out of the room.

There are many things that we may alter in every room. For instance, we might turn a photograph upside down in its frame; if the poker is kept on one side of the fireplace we can change it to the other side. Should a piece of music be on the piano we could turn it upside down. Vases may be changed, and pictures that hang at an angle from the wall may be made to hang flat against the wall; books may be turned over on the table so that their front cover is downwards. In fact, the number of things that can be altered is almost endless, and the game can be played in any room that is available.

HOW TO READ THE MARINER'S COMPASS

EVERY boy, especially every boy scout, ought to be able to read the mariner's compass—that is, to repeat the 32 points from the North by the way of the East and round to North again—without any hesitation. This is one of the first things that midshipmen and sailor boys are taught to do, and they also learn to read it backwards, so as to be thoroughly familiar with all the 32 points. It is only when we know them properly that a compass becomes of real use to us when out sailing or walking. The picture here shows the position of the 32 points. The four cardinal points are marked N., S., E., and W., and represent North, South, East, and West. The arrangements of the points between the cardinal points is similar in all four quarters of the compass card. Midway between N. and E. is North-east, marked NE., and midway between N. and NE. is NNE., called North-north-east. The point midway between NE. and E. is East-north-east, marked ENE. The remaining points are N b E., called North by East; NE b N., North-east by North; NE b E., North-east by East; and E b N., East by North. The other quarters of the card have corresponding names. As we know, the magnetic needle usually points to the magnetic pole, and not to the geographical pole. The difference between the two directions is called the variation, and as the variation of the compass differs in different parts of the world, sailors have to learn how to allow for this, wherever they may be. If the variation were not taken into account by seamen, the consequences might be very serious indeed, as a slight deviation from the true course that should be sailed by a ship might send it upon the rocks, and result in the vessel being wrecked and all hands lost.



The thirty-two points of the compass

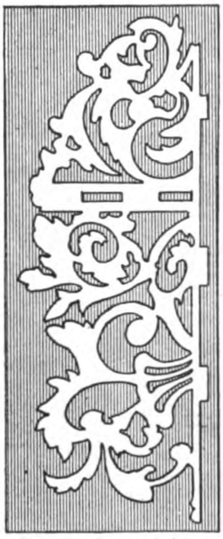
MAKING A FRETWORK BRACKET

Any boy or girl accustomed to handling tools can make the daintiest and prettiest little fretwork article with the aid of a fretsaw and some fretwood. Patterns and designs can easily be obtained, and they range from the most intricate and delicate model to the simplest photograph frame. From the large number of articles open to selection, we shall choose a corner bracket of dark wood, such as will support a little vase of flowers.

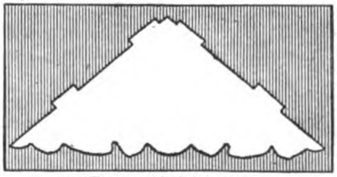
An ingenious fretworker can utilise the wood of an old cigar-box for a bracket. But whatever piece of wood is chosen, it should be quite free from knots and blemishes, close-grained, unwarped, and neither too soft nor too hard.

It is always well to get a few really necessary tools first, and add more to them as they are required. Among the things that we must have are some saw-blades, a fretsaw frame, and a small drill. An ordinary small saw will be found useful in the first rough shaping of the wood for the parts of the bracket. And in putting the parts together we shall want a few brads and a little hammer.

Now we can begin to make the bracket. We first draw the design or gum the paper pattern that we have obtained on to the wood, taking care to see that the grain of the wood runs lengthways. When the gummed paper is quite dry, we use the drill to make a hole in each of the spaces that has to be sawn away in the pattern covering the wood, taking care to place a board beneath the fretwood to prevent the drill from making holes in the table. We fix a saw-blade into the saw-frame at one end, pass the saw through one of the holes pierced in the wood, and fix the saw-blade to the other end of the frame, so that the blade can work straight up and down along the line of the pattern. Beginners will find difficulty in turning corners, and for this reason it is well to practise a little with lines, angles, and curves on an odd piece of wood before starting on an elaborate piece of ornamental work.



1. Design of one of the upright parts of the bracket



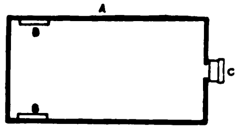
2. The shelf of the bracket

3. The corner bracket when it is finished

It is better to saw out the inner spaces in the wood first, and clear out those in projecting parts of the pattern last, as these are the most fragile and likely to snap off. Skill and deftness are needed in handling the fretted work. Even when all care is used, from some flaw in the wood or undue pressure at one part, the wood at the edge may snap. This can be glued on again, and even when the breakage is towards the centre, the broken portion may be sawn off, a new piece of wood glued on, the outline traced upon it, and the article finished. If the saw works with difficulty, we can rub a little soap on the back of the saw-blade. Having sawn out all the spaces in the three pieces of wood for the bracket—two for the sides and one for the shelf—we must smooth the edges where the saw has worked, and clear off the paper pattern. The latter can be removed by wetting it with warm water. If some of it still adheres, it can be rubbed off with glass-paper when dry. Sand-paper is also used for smoothing the rough edges that may be left by the saw. To put the parts of the bracket together, we may glue the edges. This is the easiest method if the bracket is small and not intended to support any great weight. But with a larger bracket the parts can be jointed and fastened together by little screws or small brads. Jointing and nailing is the method followed in putting together the bracket shown in picture 3 on this page. It will be seen that on each of the two sides of the shelf, in picture 2, little projections are left, to fit into the oblong holes that are cut to receive them in the upright parts of the bracket. Only one of these upright pieces is shown in picture 1, and the three projections at the back are to fit into three corresponding recesses that have to be sawn at the back of the other upright piece. We shall now want to stain or polish our bracket in some way. Polishing with a little wax polish, bought ready made, is a simple method of treatment. We oil the wood by passing over the surface a piece of rag dipped in boiled linseed oil. The bracket is then allowed to dry, and is rubbed over with a piece of dry rag, then the wax polish is applied to the bracket with a little pad of linen. A drop or two of polish is placed upon the pad, and the bracket is then rubbed with a light, circular movement. This process is repeated until the whole bracket attains an evenly-polished surface. If we prefer it, we may varnish the bracket with oak varnish, or we can use some of the many stains or enamels which are sold everywhere. In wax polishing we should be very careful to rub lightly. This is the secret of the whole art of wax polishing, for if we rub vigorously we shall at once make the surface dull. We may find it difficult at first, but in the end we shall succeed.

A CAMERA THAT COSTS A PENNY

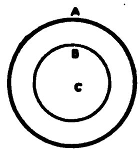
Unfortunately, cameras still cost a good deal of money, and most of them look so complicated that it may hardly occur to us that we can make one ourselves. We see them in the shops and think they are most wonderful things, just because they are covered with shiny brass levers and screws. We feel quite sure we could never make anything like them. But we are going to see how we can make a camera that will take real photographs of places or of people, and, when it is done, we shall find that it has cost just one cent.



1. The body of the camera with the lid removed
A. The oblong cigar-box
B. Supports for the plate
C Lens fixed in a pill-box

Now, first of all, we must clearly understand of what a camera consists. In its simple form it is merely a box with a lens at one end and a support to hold a photographic plate at the other.

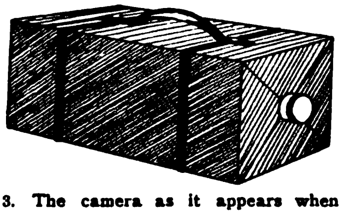
With a cigar-box we can make an excellent camera, which will work well without a glass lens at all. The whole secret of this camera lies in the fact that it is possible to take photographs with a lens that is made out of a piece of the tin foil that candy or tobacco are wrapped up in. All we have to do is to make a tiny hole in the tin foil with a pin or a needle, and that hole will form the lens. We shall understand all this clearly when we fully understand the various illustrations.



2. The little lens
A. Rim of pill-box
B. Tin foil lens
C. A small hole

The camera is made out of a cigar-box. It is one of the boxes made to hold one hundred cigars, and it will be large enough to take a photograph measuring 4¼ by 3¼ inches. That is the usual quarter-plate size to be seen in most photographic albums.

When we have found a cigar-box, we must first tear away all the inside paper lining. Then we cut little strips of wood and glue them to the sides, so as to form supports that will hold the photographic plate. The illustration shows these supports clearly. Now, in the other end of the box, we make a small hole, about half an inch across, and over it we must glue a small circle of tin foil, out of which we shall presently make the lens.



3. The camera as it appears when quite complete, wrapped in brown paper, with a rug-strap for carrying.

When we have done this, we must find a cardboard pill-box and cut a hole in the bottom a little smaller than a ten-cent piece. Then we glue the box over the tin foil, which will, of course, just show through the hole in the bottom.

Now, with the smallest needle we can find, we make a tiny hole in the tin foil, and should be careful to make it exactly in the centre of the part that shows through the bottom of the pill-box.

The lens is now complete. The lid of the pill-box will form the cap, which we remove for a few moments when taking a photograph and replace as soon as finished.

We are, of course, quite aware that it is most important that no light should enter a camera except through the lens. There must be no little chinks or cracks through which rays of light can creep and spoil the photographic plate. Therefore, we must cover the camera in such a way that there is no possibility of the tiniest glimmer of light getting in except through the little hole in the tin foil.

The simplest way is to make a cover out of thick brown paper. For one cent we can buy a large sheet at a stationer's shop. This we must wrap twice round the camera and then fold the ends over neatly, just as if we were wrapping up an ordinary parcel. Then cut a hole in the paper at one end for the lens to peep through. If we wish it to look particularly neat, we can put a small rug-strap round it all. The camera is now quite finished, and we can carry it about with us anywhere, for it will look just like an ordinary brown-paper parcel, and nobody will guess what the article really is.

When we wish to take a photograph with it, we must buy some quarter-plates at a photographic shop. The cost is not very great. Then we go into the dark-room that most photographic shops have ready for customers. We shall find it is quite dark except for the dim red light that comes from a lamp or window covered with red glass, cloth, or other material.

By this light we undo the strap of the camera, take off the brown-paper cover, open the lid of the cigar-box, and then slip one of the photographic plates behind the supports at the back. One side of the plate is shiny and the other dull white. It is the dull side that must face the lens. When the plate is in, the box must be closed, the brown paper and strap replaced, and then we can go out and take our photograph.

For the first attempt we had better choose a view. We may photograph the house in which we live.

We must rest the camera on something that will keep it steady; the top of a wall will do. Then, when we are ready, we merely take off the lid of the pill-box and keep it off for about six seconds. Then we replace it, and the photograph is taken.

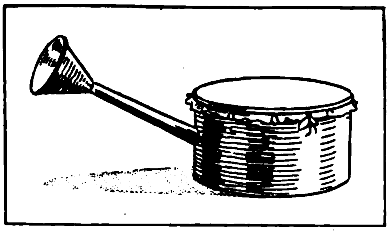
If it is a dull day, with clouds in the sky, we should keep the pill-box lid off a little longer—perhaps ten or twelve seconds. But if the sun is shining, six will be quite enough. Of course, we must be careful that nobody is moving about in front of the house while we are taking the photograph. If anyone walked past during the few seconds the pill-box lid is off, the picture would be spoiled.

The process of developing the plate and printing on paper is described on page 4245.

A BOX THAT DRAWS VOICE PICTURES

It is possible to draw beautiful designs with the voice, the designs varying in form according to the strength or pitch of the note that is spoken or sung. On page 4072 are given some of the designs that can be drawn in this way; and it is possible for a boy to make a simple instrument that will enable him to draw voice pictures of this kind.

Get one of those small tin saucepans that are sold at the hardware shop for about five cents. Then open the end of the handle, if it is not already open, and also make a hole in the saucepan where the handle joins it, so that the handle is really a tube into the saucepan. The shop-keeper will probably do this for us for a small charge if we ask him. Now take a piece of thin india-rubber, such as toy balloons are made of, and tie this tightly over the top of the saucepan, just in the same way as covers are tied on to jam-pots, taking care that the india-rubber is really well stretched. A piece of a bladder or toy balloon does excellently for this purpose. A paper funnel made like a grocer's sugar-bag, with the edge stuck down, should be inserted in the end of the handle, and our eidophone, a name which means "to copy sound," is complete so far as its construction is concerned. The picture on this page shows its appearance.

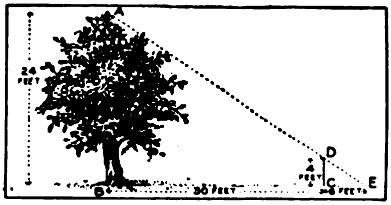

A little box that makes voice pictures

We now have to prepare the surface of the rubber covering so that our voice may be able to draw designs upon it. There are various ways of doing this. We may put a very thin layer of coloured glycerine over the drum, or we may spread the finest sand evenly on the surface. Then, if we sing a note steadily and continuously down the funnel, the sand or glycerine will gradually take a regular form until some beautiful and delicate geometrical design is produced. By practice, of course, we shall learn to sing the notes continuously at suitable pitches, and according to the change in the note so the design will change. The pictures on page 4072 show how varied these voice pictures may be. Some will come like flowers, others like ferns, and others, again, like trees. The science of voice pictures is explained on page 4917. If we wish to get even more delicately detailed designs than the fine sand produces, we may try lycopodium powder, a fine yellow powder that is the seed of the plants called lycopodiums. This is to be obtained at the drug store, where also we may buy glycerine of various colours. The druggist will colour the glycerine for us according to our order.

In place of the paper funnel inserted in the end of the handle of the saucepan, we can, if we like, get a penny tin funnel, knock the narrow tube off, and have the wide funnel part soldered into the handle. This will make a stronger and more permanent instrument. The whole apparatus will cost at the outside only a few cents, and certainly the results that are to be obtained from it are very striking and astonishing.

MEASURING THE HEIGHT OF A TREE

There is a very simple way of measuring the height of a tree, which may be in a field or a park, and which it is impossible for us to measure by climbing or in any direct way. Suppose, for instance, that we wish to find out the height of the apple-tree, A B, in the picture. We first of all go to where the tree is standing and measure a distance of, say, 30 feet from it, in a straight line, marking the spot that is 30 feet from the tree. Then we take a stick, C D, of any convenient length — a fairly straight branch of a tree will do admirably—and stand this upright in the ground at the spot we have previously marked. Let us suppose that the stick we are using is 4 feet in height. We now walk farther away from the tree in the same straight line as when we measured off the distance of 30 feet. We go from the tree until we come to a point E, where, with our head on the ground, we see the top of the stick and the top of the tree in the same straight line—that is, the top of the stick just covers the highest part of the tree. We now have two imaginary triangles, as shown in the picture, and the proportion of the side C D to the side C E, in the smaller triangle C D E, is exactly the same as the proportion of the side B A to the side B E, in the larger triangle B A E. It is clear from this that every schoolboy or schoolgirl can work out the height of the tree. Suppose that the line C E is 6 feet. We know that the stick is 4 feet high and the length B E 36 feet. From these measurements we have the simple proportion sum 6 is to 4 as 36 is to B A. We multiply 36 by 4, making 144, and divide by 6, which gives us 24 feet as the height of the tree. Church steeples and other buildings can, of course, be measured in the same way. The advantage of this method of measuring a tree or building over that described on page 1927 is that this can be done in dull as well as in sunshiny weather.



An easy way of measuring a tree

THE NEXT THINGS TO MAKE AND DO ARE ON PAGE 5351

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